

THE NON-SLAVIC LANGUAGES OF THE USSR

Linguistic Studies

Edited by
HOWARD I. ARONSON
University of Chicago

Chicago Linguistic Society
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Published 1989 by:
THE CHICAGO LINGUISTIC SOCIETY
University of Chicago
1050 East 59th Street
Chicago, Illinois 60637

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ISBN: 0-914203-34-7

Printed in the United States of America.

PREFACE

The papers in this volume were originally presented in abbreviated and, often, in preliminary form at the Fifth International Conference on the Non-Slavic Languages of the USSR, held at the University of Chicago in May, 1987. There are a number of people who have helped greatly in the processes leading to the publication of this volume and I would like to express my gratitude to them: to my colleague, Bill J. Darden, co-organizer of the Conference; to Stuart M. Tave, Dean of the Division of the Humanities of the University of Chicago, for helping to fund the publication of the volume; to the officers of the Chicago Linguistic Society for agreeing to have CLS serve as the publisher of the volume; to David Testen, for his generous aid in the organization of the Conference and the preparation of the volume; and to all the contributors to the volume. A number of the papers were subjected to outside evaluation and I would like to also thank those who served as referees.

This volume appears ten years after the first Conference on the Non-Slavic Languages of the USSR. The past decade has seen tremendous growth in the linguistic study of the non-Slavic languages of the Soviet Union both in terms of the numbers of scholars working in these fields and the quality and the quantity of the scholarly literature. With the ongoing *perestroika* in the Soviet Union, more and more people are becoming aware of the existence of those heretofore little-known peoples whose languages form the object of our investigations. The importance of studying these peoples and their histories and cultures becomes ever clearer to us as a result of the changes in the Soviet Union. We hope that these linguistic studies will serve not only to expand our understanding of the structure of language and languages, but also to help make the study of these peoples and their cultures more accessible to all.

H. I. Aronson
Chicago, May 1989

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INFLECTION VS. DERIVATION IN GEORGIAN CONJUGATION

Howard I. Aronson
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Given the large number of formally related verbal forms containing one and the same root morpheme in Georgian, it becomes important to determine which forms are in an inflectional (or paradigmatic) relationship and which forms are best viewed as being in a derivational relationship. We shall base our criteria for the distinction between inflection and derivation on Edward Stankiewicz's (1962:6-7) definition of their difference: "A grammatical opposition is a semantic unity of polar terms which are bound by a rule of bilateral implication. ... In a derivational relationship, on the other hand, the derived term necessarily presupposes a basic term, but the reverse does not hold."

Formal definitions of conjugation classes. Before approaching this problem, however, it is necessary to determine that we are operating with a rigorous and clear set of definitions of form classes of the verb, in particular, what we have called elsewhere "conjugations" (Aronson 1982:40). Most Georgian treatments of this question are semantically based (*gardamavali* 'transitive,' *vnebiti* 'passive,' *sašuali* 'middle') and often even are circular: a grammatically intransitive verb is called *gardamavali* 'transitive' in KEGL because it is inflected according to a pattern characteristic predominantly of transitive verbs.¹ Our approach to defining conjugation class membership will be formal, morphosyntactic, and not semantic. In this respect we hope to follow the model set by Holisky 1981 in defining medial verbs (our III. conjugation.)

Preverbs and the "perfective/imperfective" opposition. For our classification of conjugation classes it is necessary first of all to raise the question of whether the relationship posited between "imperfective" and "perfective" I. and II. conjugation verbs should be regarded as inflectional or derivational. This question is a problem not only for Georgian. There is, for example, a vast literature dealing with a similar question in the Slavic languages, with different linguists arriving at quite diverse conclusions. For our purposes, we shall apply Stankiewicz's criterion (1986:176). Given the following I. conjugation forms, what kind of implications do we find?

- | | |
|-------------------------|----------------------------------|
| a. <i>da-çer-s</i> | write (down, up) (perf.) |
| b. <i>çer-s</i> | write (imperf.) |
| c. <i>ağ-çer-s</i> | describe (perf.) |
| d. <i>u-čven-eb-s</i> | show someone (imperf. and perf.) |
| e. <i>čamo-a-kleṭ-s</i> | scrape, scratch one's (perf.) |

Most authorities regard the first example, *daçers*, as the (grammatical, paradigmatic) perfective counterpart to the imperfective *çers*. But, if we compare this form with *ağçers*, it is clear that one cannot predict that the imperfective is formed from (a.) by dropping the preverb while no imperfective can be formed from (c.). Likewise, if we compare (c.) and (d.), there can be no predicting that *çers* forms its perfective with the preverb *da-*, while *učvenebs* "forms its perfective" without the addition of a preverb. Finally, although *ağçers* is perfective and has no corresponding imperfective, it shows a clear relationship to the imperfective *çers*, while there is no corresponding unprefixd, imperfective **akleṭs* corresponding to the prefixed perfective *čamoakleṭs* (GDW, KEGL).

To summarize: given a prefixed form, there is no predictability as to whether or not that prefix can be dropped to form a paradigmatically linked imperfective; given an unprefixd form, there is no predictability of what prefix will be used to form a perfective, if any. Obviously, our criteria for a paradigmatic, grammatical relationship are not met and we must conclude that so-called aspectual pairs (e.g., *daçers* / *çers* 'write,' *gaaketebs* / *aḱetebs* 'make,' *aašenebs* / *ašenebs* 'paint,' *moigebs* / *igebs* 'win,' etc.) will have to be viewed as standing in a derivational or lexical relationship and not as inflectional.² Thus, I. and II. conjugation verbs do not have an inflectional, paradigmatic opposition present / future.

"Inversion" and the Dative Construction (DC). A second preliminary problem connected with defining conjugation classes is how to treat what has been called "inversion," "objektive Reihe," etc. This is a critical question, since a number of scholars have singled out a special form class where such inversion is an essential element determining membership in that conjugation (e.g., Tschenkéli 1958:I.446ff. "indirekte Verben," Aronson 1982:332ff. "IV. conjugation"). We shall follow Tuite (1988) in restricting the use of the term "inversion" for the phenomenon observed in the perfect series of I. and III. conjugation verbs. The phenomenon that we shall call DATIVE CONSTRUCTION (DC) involves number agreement with a third-person plural DAT actant and the

concomitant lack of number agreement with a third-person plural NOM (or NOM/ERG) actant; . Since DC is observed in all four conjugations, it cannot be regarded as a diagnostic of conjugation membership. Consequently, it becomes necessary to either redefine the IV. conjugation, or eliminate it as a separate form class.

Formal criteria for conjugation membership. It should be clear that conjugation membership cannot be determined on the basis of semantic criteria. Of the syntactic criteria, very few can prove helpful: valence, for example, clearly cannot serve as a criterion, as verbs of all conjugations can occur with only one or with two actants and I., II., and III. conjugation verbs can occur with three actants; e.g.:

I. conj.

Momca. 'He gave it to me.'

II. conj.

Nu mpirdebi caši čeros... 'Don't promise me a crane in the sky...' (KEGL)

III. conj.

Igi me mimğeroda im simğeras. 'He was singing that song to me.'

Gvimğeret irlandiuli simğeras, Roza! 'Sing us an Irish song, Rosa!' (KEGL)

One syntactic criterion that is essential, however, for a rigorous definition of conjugation membership is case marking in the aorist series. On the basis of this criterion we can define two distinct groups: those verbs that take the ERG in this series and those that do not. To the first group, which we shall call the E(rgative)-Group belong I. and III. conjugation verbs; to the second, arbitrarily called the N-group³ belong II. and IV. conjugation verbs. Yet this criterion is not a very powerful one, since to be applied, a verb must have both ergative series and future or present series forms. Thus, such verbs as *miičevs* 'he is attracted' (I. conj.), *ečerdeba* 'he is in a rush' (II. conj.), *gorozobs* 'he is arrogant' (III. conj.) *mciva* 'I'm cold' (IV. conj.), which lack aorist series screeves, cannot be classified according to our first, syntactic, criterion.

Clearly, further, formal, criteria are needed. Having taken the syntactic criterion as a starting point, we shall now attempt to make further distinctions within each of the two syntactic classes.

Subclassification of E-group conjugations. According to most analyses, I. conjugation verbs form the future series (and other series derived from the future) by addition of a preverb to

the present screeve form, e.g., *çers* 'he is writing' > *da=çers* 'he will write.' III. conj. verbs form the future series by means of the circumfix *i-...-eb-* added to the root of the present screeve, i.e., *duğs, mğeris, mepobs* 'it is boiling, he is singing, he is reigning' > *iduğs, imğerebs, imepebs* 'it will boil, he will sing, he will reign.' Holisky (1981:14) has, in fact, used this feature to define the III. conjugation (her 'medial verbs').

But, as we have tried to show above, the prefixation of I. conjugation verbs to form the future series must be regarded as derivational rather than paradigmatic. As a consequence we shall regard such pairs as *çers* / *daçers* as representing two distinct verbs, linked derivationally but having distinct lexical meanings. This has a further consequence: I. conjugation verbs have only three series of forms: nonpast (i.e., present or future), aorist, and perfect. But if the relationship between *çers* and *daçers* is derivational or lexical, the relationship between, e.g., *mğeris* and *imğerebs* has been shown by Holisky to be purely paradigmatic. As a consequence, III. conjugation verbs will have **both** a present and a future series.⁴ The differences can be summarized in the following chart contrasting the forms of the verb *ağ+çers* 'describe' and *mğeris* 'sing':

	PRESENT/FUTURE	AORIST	PERFECT
NONPAST	<i>ağçers</i>	—	<i>ağuçeria</i>
PAST	<i>ağçerda</i>	<i>ağçera</i>	<i>ağçera</i>
MODAL	<i>ağçerdes</i>	<i>ağçeros</i>	[<i>ağçeros</i>]

A similar pattern would be shown for the two distinct verbs *çers* and *daçers* 'write.'

	PRESENT	FUTURE	AORIST	PERFECT
NONPAST	<i>mğeris</i>	<i>imğerebs</i>	—	<i>umğeria</i>
PAST	<i>mğeroda</i>	<i>imğereboda</i>	<i>imğera</i>	<i>emğera</i>
MODAL	<i>mğerodes</i>	<i>imğerebodes</i>	<i>imğeros</i>	[<i>emğeros</i>]

Consequently, we shall view the presence of a formal opposition PRESENT SERIES/FUTURE SERIES as a formal feature of the III. conjugation; such an opposition is lacking in I. conjugation verbs.

A second formal difference between I. and III. conjugation verbs, the formation of the present perfect will be discussed below.

Prefixed "medial verbs." A particular problem is presented by III. conjugation verbs taking preverbs in the future, aorist, and perfect series, e.g., *da+laparakebs* 'begin to speak.' Such forms show features linking them to both the I. and III. conjugations:

I. CONJUGATION FEATURES

1. No opposition between present and future series.
2. Presence of a preverb
3. Telicity⁵

II. CONJUGATION FEATURES

1. Present perfect formed according to III. conjugation pattern, e.g., *daulaparak(n)ia* (cf. *gaumeorebia* from *gaimeorebs*).
2. Intransitivity (generally)

However, using our criterion for distinguishing between I. and III. conjugation verbs, namely, the absence vs. presence of a grammatical (paradigmatic) opposition present/future, we must conclude that such forms as *dailaparaķebs*, etc., are best regarded as I. conjugation.⁶

Perfect Series Forms of I. and III. Conjugation Verbs.

In I. conjugation verbs, as a rule, the present perfect stem is based on the corresponding present or future screeve stem and the present or future stem formant, if any, is preserved in the present perfect.⁷ III. conjugation verbs base the present perfect on the future screeve stem, but with deletion of the future stem formant *-eb*. This difference is summarized in the following chart:

I. CONJ.

PRESENT/FUTURE	PRESENT PERFECT	
(da)čers	(da)učeria	write
čarmotkvams	čarmoutkvams	pronounce
(da)xaṭavs	(da)uxaṭavs	paint
(ga)aketebs	(ga)uketebia	make

III. CONJ.

PRESENT	FUTURE	PERFECT	
duḡs	iduḡebs	uduḡnia	boil
mḡeris	imḡerebs	umḡeria	sing
laparaķobs	ilaparaķebs	ulaparaķ(n)ia	speak
elavs	ielvebs	uelv(n)ia	lightning
kris	ikrolebs	ukrol(n)ia	blow
qivis	iqivlebs	uqivlia	crow

As can be seen from the last three examples above, the present perfect stem is clearly based on the future stem with the loss of *-eb*. Such a loss of the future stem formant does not occur in syllabic I. conjugation verbs (see note 7)

Further, III. conjugation verbs often take the infix *-n-* before the screeve markers of the present perfect and pluperfect, while, as a rule, this infix does not occur with I. conjugation verbs. Examples:

	FUTURE	PERFECT	AORIST	PLUPERFECT
I. CONJ.	gaimeorebs daxaṭavs daičers	gaumeorebia dauṣaṭavs daučeria	gaimeora daixata daičira	gaumeorebina daexaṭa daečira
III. CONJ.	eṭriaṭna iduḡebs iceḡvebs	iṭriaṭebs uduḡnia uceḡvia	uṭriaṭnia iduḡa icekva	iṭriaṭa eduḡna eceḡva

Nevertheless, there are verbs which give every appearance of being unambiguously I. conjugation but show variants with the same formation of perfects series screeves as III. conjugation verbs. Examples include:

PRESENT/FUTURE ⁸	PRESENT PERFECT
da=paṭižebs/=paṭižobs T ¹	daupaṭižebialdaupaṭižnia 'invite'
da=ipaṭižebs T ²	daupaṭižebialdaupaṭižnia 'invite to o.s.'
da=ižinebs T ²	daužinebialdaužinia 'insist on sthg.'
da=isadgurebs T ²	dausadgurebialdausadgurnia 'house o.s.'

Similarly, there are III. conjugation verbs which form their perfect series forms according to the I. conjugation pattern or show variants according to this pattern:

PRESENT	FUTURE	PRESENT PERFECT
h-paṭronobs RM ¹	upaṭronobs	upaṭronebia 'protect s.o.'
puṭunebs MV	ipuṭunebs	upuṭunia upuṭunebia 'whisper'

From such evidence we can conclude that the method of formation of the perfect series screeves is not necessarily decisive for the determination of the conjugation type to which a given verb belongs. This is especially true if we assign the so-called prefixed middle verbs to the I. conjugation, since with such an analysis the number of I. conjugation verbs with perfect series formation typical of III. conjugation verbs is significantly increased.

Formal Problems with III. Conjugation verbs. There is a number of verbs (with varying semantics) that have no preradical vowel *i-* in the present series, but do show this marker in the future

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and aorist series, although without the future stem formant *-eb-*; examples include:¹⁰

PRESENT	FUTURE	AORIST	PERFECT	
šoulobs	išov(n)is	išov(n)a	ušov(n)ia	find, get
dis	idens	idina	udenia	flow
prinavs	iprens	iprina	uprenia	fly
qidulobs	iqidis	iqida	uqidia	buy
rbis	irbens	irbina	urbenia	run
šçavlobš	išçavlis	išçavla	ušçavlia	study, learn
txoulobs	itxovs	itxova	utxovia	ask for
poulobs	ipovis	ipova	upov(n)ia	find, get
kitxulobs	ikitxavs	ikitxa	ukitxavs	read; ask
čadis	čaidens	čaidina	čaudenia	commit
stvens	ištvens	ištšina	uštvenia	whistle
RELATIVE				
hkbens	ukbens	ukbina	ukbenia	bite
(h)švelis	ušvelis	ušvela	ušvelnia	help s.o. ¹¹

FROM ŠANIJE 1973:525:

grjnobs	igrjnobs	igrjeni/igrjno	ugrjvnia	feel
cnobs	icnobs	icani/icno	ucvnia	recognize
bčkens	ubčkens	ubčkina	ubčkencia	pinch s.o.
rkens	urkens	urkina	urkenia	gore
s-čkmeṭš	učkmeṭš	učkmiṭa	učkmeṭia	pinch s.o.

Insofar as these verbs show a pattern that is inflectional rather than derivational,¹² a pattern that follows in basic outline that of medial verbs, we shall tentatively regard these, too, as III. conjugation.

Subclassification of N-Group conjugations. The N-group conjugations includes the II. conjugation, the IV. conjugation, and, as will be shown below, the passives of state. The opposition here is similar to that found in the E-group: like I. conjugation verbs, II. conjugation verbs do not have a paradigmatic opposition between present and future series screeves; the opposition is instead derivational, lexical, usually marked by the presence vs. absence of a preverb. Like III. conjugation verbs, though, IV. conjugation verbs and passives of state, which henceforth will be included in the IV. conjugation, have the paradigmatic opposition present series/future series, forming the latter with the circumfix *e-...-eb-*.

It is this similarity of formation of the future series (and those series derived from it) that leads us to group the passives of state with the 'indirect verbs.'¹³ The following charts illustrate this:

II. CONJUGATION			
	PRESENT/FUTURE AORIST		PERFECT
NONPAST	açereba	—	açerila
	galamazdeba	—	galamazebuga
	moxdeba	—	momxdara
PAST	açerda	açera	açeriliqo
	galamazdeboda	galamazda	galamazebugi
	moxdeboda	moxda	momxdariqo
MODAL	açerdes	açeros	[açeriliqos]
	galamazdebodes	galamazdes	[galamazebugi]
	moxdebodes	moxdes	[momxdariqos]

IV. CONJUGATION: "INDIRECT VERB"				
	PRESENT	FUTURE	AORIST	PERFECT
NONPAST	msurs	mesurveba	—	msurvebuga
PAST	msurda	mesurveboda	mesurva	msurvebuga
MODAL	msurdes	mesurvebodes		mesur(v)os
	[msurvebodes]			

IV. CONJUGATION: "PASSIVE OF STATE"				
	PRESENT	FUTURE	AORIST	PERFECT
NONPAST	(s)çeria	eçereba	—	[çerebuga]
PAST	—	eçereboda	eçera	[çerebugi]
MODAL	—	eçerebodes	eçeros	[çerebugi]

As can be seen from the example of *msurs* 'wish,' as with III. conjugation verbs, IV. conjugation verbs form the aorist and perfect series on the basis of the stem of the future screeve, not that of the present.

There is, however, a further complication with N-group verbs: in many instances, the formation of the aorist (and perfect) series screeves cannot be predicted on the basis of the N-group forms; rather, one must have recourse to the corresponding I. conjugation form to form these screeves. Compare the following:

N-GROUP II. CONJUGATION		I. CONJ.		
FUTURE	AORIST	FUTURE	AORIST	
aiqreba	aiqara	aqris	aqara	explode
daibmeba	daiba	daabams	daaba	tie
gaigeba	gaigo	gaagebs	gaago	spread out
daičrebi	daičeri	dačri	dačeri	cut (2sg.)
moikvlebi	moikali	moklavs	mokali	kill (2sg.)

With IV. conjugation verbs various nonpresent series stems, particularly those of the perfect series, are predictable only given knowledge of corresponding I. conjugation forms:

IV. CONJUGATION:

N-GROUP				I. CONJ.	
PRESENT	FUTURE	AORIST	PERFECT	PRESENT	AORIST
mesmis	-mesmeba	-mesma	-msmenia	ismens	ismina
hqria	eqreba	eqara	qrila	qris	qara
penia	epineba	epina	penila	apens	apina

Predictability here is different from that in I. conjugation verbs (present/future > aorist) and III. conjugation verbs (present > future, aorist) and will be characterized below as "horizontal derivation" as opposed to the "vertical derivation" of the former.

Are Passives of State IV. conjugation verbs? Prior analyses of Georgian either do not separate out what we are calling IV. conjugation verbs as a separate form class or include in the class those verbs which are marked by what has traditionally been called "inversion" or "objective conjugation" in all series. But, since, as pointed out by Tuite (1988), such DC verbs are found in the I., II., and III. conjugations, i.e., none of the other conjugations are characterizable as being totally DC or totally non-DC, it seems reasonable that this should be true also of the IV. conjugation. We have earlier characterized this conjugation formally as having the circumfix *e-...-eb-* in the future series, while lacking it in the present series (Aronson 1982:336).¹⁴ This criterion is met by all passives of state (both absolute and relative).

IV. Conjugation verbs without inversion. In addition to the passives of state (which may or may not be marked by inversion, either in terms of Georgian number agreement or in terms of translational equivalents in Western European languages), there is a small number of both stative and nonstative verbs that are marked formally as IV. conjugation. These include:

cdilobs	ecdeba	ecada	cdila	try
ğirs	eğireba	—	ğirebula	be worth, cost

Holisky (1981:129) gives the following examples:

bnela	ebneleba	be dark
grila	egrileba	be cool
tbila	etbileba	be warm
civa	eciveba	be cold
cxela	ecxeleba	be hot

Šanije (KEGS 534) gives the following:

hgavs	egvaneba	be similar ¹⁵
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SUMMARY:
CRITERIA FOR CONJUGATION MEMBERSHIP

E-CONJUGATIONS (ERG in aorist series)		N-CONJUGATIONS (no ERG in aorist series)	
I. CONJUGATION	III. CONJUGATION	II. CONJUGATION	IV. CONJUGATION
•No paradigmatic opposition between present and future	•Future series screeves formed with circumfix <i>i-...-eb-</i> .	•No paradigmatic opposition between present and future	•Future series screeves formed with circumfix <i>e-...-eb-</i>
•Perfect generally with present/future stem formant.	•Perfect lacks stem formant <i>-eb-</i> .	•Distinct formation of perfect series screeves	
•No opposition absolute/relative in perfect series screeves.		•Opposition absolute/relative in perfect series screeves.	

The above can be summarized by the following chart showing the features essential for distinguishing four conjugations in Georgian.¹⁶

	PRESENT/FUTURE OPPOSITION	TAKES ERGATIVE
I. CONJ.	—	+
II. CONJ.	—	—
III. CONJ.	+	+
IV. CONJ.	+	—

Verbs of all four conjugations can occur either absolute or relative. Relative verbs of all four conjugations can occur either with the dative construction (GDW = *objektive Reihe*) or with the "subjective" construction.¹⁷

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The problem of Present Series Only (PSO) verbs. Note that all the definitions of conjugation membership require information from at least two series. Those verbs which have only present-series screeves cannot, therefore, be assigned to one of our four conjugational groups.

One clear example of the problems presented by such verbs is the active use of *icereba*, listed in GDW as present series only. Although formally this verb appears to be clearly II. conjugation, there are some problems here. This verb can take a DAT object., e.g.:

Gazetebi ert imistana ambavs *icerebian*, romelsac ...
adamiani gverds ver aukcevs. 'The newspapers are writing
such a bit of news which a person can't avoid.'

But what is the syntactic function of the dative object? Is it a direct or an indirect object? If it were an indirect object, we would expect to find the relative form of the verb, i.e., *eçereba*. The absence of this form would tend to indicate that *ambavs* is a direct object. But II. conjugation verbs are not viewed as taking direct objects; further one can determine whether a given actant is a direct object or an indirect object only by a comparison of the noun phrase in an aorist series construction with a present/future (or perfect) series construction.

It should be clear that PSO verbs cannot be meaningfully assigned to any conjugational class. In a sense they should be viewed as forming a separate formal class by themselves.

Inflection vs. derivation. Having established tentative formal definitions for four conjugational classes, we shall now proceed to a discussion of whether the relationships between the various forms of a given verb root should be regarded as standing in an inflectional or derivational relationship. In the following discussion, we shall continue to operate with Stankiewicz's definition of the distinction between the two, as given above.

I. Conjugation > II. Conjugation. What is the relationship between I. conjugation verbs and II. conjugation verbs? Judging from the evidence of GDW, there is a not insignificant number of I. conjugation verbs without corresponding II. conjugation forms and vice versa. Some examples are:

I. CONJ. (T¹-5) VERBS LACKING II. CONJUGATION FORMS (P¹-3)

šezaravs	terrify
adudunebs	make s.o. murmur

adḡegrjelebs	toast s.o.
amodingavs	root sthg. out
dadḡlezs	tear
gamoizamtrebs	winter, spend the winter
gaustumrebs	pay s.o. back for sthg.

II. CONJUGATION

dazaprdeba	become jaundiced
dazezdeba	tear loose
itavleba	grow ears (of grain)
midrḡeba	bend
eṣtumreba	visit s.o.
daemšvidobeba	take leave of s.o.

Clearly, too, the number of relative I. conjugation verbs lacking corresponding relative II. conjugation forms is greater than the number of absolute I. conjugation verbs lacking corresponding absolute II. conjugation forms.

We can therefore conclude that the I. and II. conjugation forms of a given verbal root do not form "a semantic unity of polar terms which are bound by a rule of bilateral implication," but rather pattern as a derivational relationship. This is even clearer for the relationship between IV. conjugation verbs (including passives of state) and I. and II. conjugation verbs forms sharing an identical root.

For I. and II. conjugation verbs to be in an inflectional relationship there should be absolute predictability of the difference in meaning between the two forms. That this does not obtain is clear; cf. the following examples:

T ¹	gaatenebs	spend (the night); stay up (all night)
P ¹	gatendeba	dawn, day breaks
T ³	gauqris	throw out several; stick sthg. through sthg.; bore through s.o.'s sthg.
T ⁵	gahqris	spread dissension
RP ¹	gaeqreba	separate from s.o.
T ³	gauprtxilebs	warn s.o.'s
RP ³	gauprtxildeba	treat s.o. carefully; take sthg./s.o. into consideration

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T ¹	miakcevs	turn sthg. (e.g., face); reconvert (to o's old religion)
P ¹	miikceva	turn back, return

We must then conclude that the relationship between corresponding I. and II. conjugation forms is not inflectional (paradigmatic).

Prediction of series forms. If we accept the notion that the relationship between I. conjugation verbs and related II. and IV. conjugation verbs is one of derivation rather than inflection, then the formal relationships between the three series of the latter group (II. and IV. conjugation) present a strange picture: In general, the aorist series screeves and the present perfect of I. conjugation verbs can be viewed as formally derived from the present/future series of the same verb and the pluperfect can be viewed as derived from the corresponding aorist. But in II. and IV. conjugation verbs, the aorist series must be regarded as derived not from the corresponding II. conjugation present/future series, but rather as from the aorist series of the corresponding I. conjugation verb. Similarly, the absolute and relative perfect series screeves of II. and IV. conjugation verbs are derived not from their corresponding present/future and aorist series, but rather from nominal forms (perfect participle and verbal noun) which are in turn derivable only from the corresponding I. conjugation forms. (See fig. 1. at the end of the article.)

Let us illustrate this. Compare the following II. conjugation verbs:

FUTURE	AORIST	PERFECT	
daičrebi	daičeri	dačrilxar	you will be wounded
moikvlebi	moikali	moklulxar	you will be killed
gardaicvlebi	gardaicvale	gardacvlilxar	you will pass away
čaitvlebi	čaitvale	čatvlilxar	you will be considered
daičveba	daičva	damčvara	it will burn
daišveba	daišva	dašvebula	it will sink
daixaṭeba	daixaṭa	daxaṭula	it will be painted
daičereba	daičera	dačerila	it will be written

As can be seen, there is little or no predictability of the aorist and perfect on the basis of the future. Compare now the corresponding I. conjugation aorist forms and the perfect participles; the latter

can be derived from the I. conjugation forms, but not from the II. conjugation forms:¹⁸

PRESENT/FUTURE	AORIST	PERFECT PARTICIPLE
dačris	dačeri	dačrili
-cvlis	-cvale	-cvili
čatvlis	čatvale	čatvlili
dačvavs	dačva	damčvari
dašvebs	dašva	dašvebuli
daxaťavs	daxaťa	daxaťuli
dačers	dačera	dačerili

Especially clear is the situation with those root II. conjugation verbs whose perfect series screeves are based on the stem of the corresponding transitive (causative), derived from the II. conjugation form:

II. CONJ. FUTURE	PERFECT	I. CONJ. FUTURE	PERFECT PARTICIPLE	
darčeba	darčeniła	daarčens	darčeniłi	remain
moxdeba	moxdeniła	moaxdens	moxdeniłi	happen

A similar picture obtains with the relative perfect of II. conj. verbs. So, for example, the relative II. conj. *daaxsovdeba* 'sthg. becomes engraved in o's memory' has the perfect *daxsomebia*, derived from the corresponding transitive *daixsomebs* 'engrave in o's memory.' The relative *šexvdeba* 'meet s.o' forms its present perfect from the stem of the masdar. This verb has two masdars: *šexvdoma* and *šexvedra*. Hence, there are two possible forms for the present perfect: *šexvdomia* and *šexvedria* (cf. also the I. conj. *šeaxvedrebs* 'have s.o. meet s.o.'). (Similarly, the absolute II. conj. form *mixvdeba* has two forms of the present perfect because there are two competing forms of the perfect participle (which forms the basis of the absolute present perfect of II. conjugation verbs): participles: *damxvdari* / *daxvedrili*; present perfect: *damxvdara* / *daxvedrila*.)

The formation of perfect series screeves of IV. conjugation verbs is generally predictable not on the basis of the present or future of the IV. conjugation form; these are rather based on a derivationally related I. conjugation form.

IV. CONJ

I. CONJ.

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PRESENT/FUTURE PERFECT		FUTURE	
mesmis/ momesmeba	momsmenia	moismens	hear
mṭkivis/ meṭkineba	mṭḱenia	iṭḱens	hurt, ache

On the basis of the above evidence, we can view the formal relationships among the various series of II. and IV. conjugation verbs as **horizontally derivable** as opposed to the relationships among the various series of I. conjugation verbs, which can be viewed as **vertically derivable**; see fig. 1 above.

Defective paradigms. A number of Georgian verbs show defective paradigms, i.e., paradigms lacking one or another series. Such patterning is more common with III. and IV. conjugation verbs.¹⁹ It is less common in II. conjugation verbs, and least common, though not unknown, in I. conjugation verbs. Some examples (from GDW²⁰) are given below:

PRESENT	FUTURE	AORIST	PERFECT	
mrcxvenia	mercxvineba	—	—	be ashamed
ejiebs	—	ejia	—	investigate
ḡobs	aḡobebs	—	—	be better
—	—	rkva	—	say
—	erigeba	eriga	—	stand in a line
ḡḡlis	daḡḡlis	—	dauḡḡlia	cause a rip
m-a-ḡriaiebs	gamaḡriaiebs	gamaḡriala	—	shudder
—	ioblebs	iobla	uoblia	be an orphan
m-e-neleba	meneleba	menela	—	is left behind
enaḱileba	enaḱileba	enaḱila	—	participate

This high degree of defectivity can be viewed as an argument against inflectional relationships between various series forms, since there is no "rule of bilateral implication" such that, e.g., the presence of a future series implies the presence of an aorist series and vice versa, unlike the situation in the nominal system, where the presence of an ERG case in a nominal paradigm does imply the existence of the NOM, DAT, INS, and ADV. One can conclude that the degree of grammaticalization of the Georgian paradigm has not gone as far as it has in other languages, e.g., the languages of Western Europe.²¹

Conflicting views on the paradigm of a verb. It is common to find different sources assigning different forms to the paradigm of a given present series form. Examples include:

h-gavs	GDW: PSO
	KEGS: : egvaneba egvano hgvanebia
Ø=ualersebs	GDW: Pf.: Ø=-alersnia
	KEGL: Pf: moualersebia
ğirs	GDW: eğireba — ğirebula
	KEGL: PSO
tbila	Holisky: (1981:129) etbileba
	GDW, KEGL, KEGS:537: PSO
ḱocnis	KEGS:538: Fut. aḱocebs
	GDW: PSO ²²

Such examples are further evidence of the weak connection between the various series of a verb. If we compare this situation to that of the Indo-European languages of Europe it should be clear that in the latter the degree of paradigmaticization of various verb stems (e.g., the present and aorist or infinitive stems in Slavic) is significantly greater than that found in Georgian.

Conclusions. It appears that the degree of uniting various series into one verbal paradigm varies greatly according to conjugation type. In general, this "paradigmatization" is weakest in the III. and IV. conjugations, where defective paradigms (i.e., with missing series: III. and IV. conjugations) or series clearly derivational rather than inflectional in their formation (IV. conjugation) are not uncommon. The I. and II. conjugations show a much greater degree of paradigmaticization, although II. conjugation verbs can be viewed as forming their various series horizontally rather than vertically (see above). Paradigmatization has proceeded the furthest in the I. conjugation. Nevertheless, in both the I. and II. conjugations (as opposed to the III. and IV. conjugations) the relation between the present series and the future series is lexical or derivational, but not paradigmatic.

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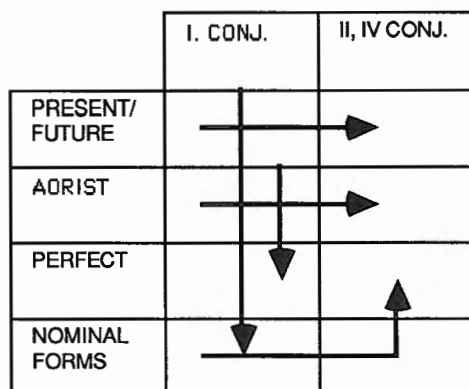


Fig. 1.

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NOTES

¹Similarly Tschenkéli in GDW marks clearly intransitive verbs with *T* (= Transitive) purely on formal grounds; cf., e.g., *daaxvelebs* *T*¹ 'give a cough,' *daigvianebs* *T*² 'be late,' etc. Our I. conjugation corresponds to Tschenkéli's 'Transitive,' II. conj. to his 'Passive,' III. conj. to his 'Mittelveben' and IV. conj. to his 'indirekte Verben.'

²In support of this, one can point out the numerous instances of verbs which take a "zero" preverb, i.e., a form that can be used with both perfective and imperfective (and hence present and future) meaning. Add to this the number of verbs taking a preverb in the present series (as opposed to the future series) and it becomes clear that the presence vs. the absence of a preverb cannot be viewed in Georgian as an inflectional process, but must be considered derivational.

³N from Nominative. But these verbs need not have an actant in the nominative in the aorist series. For example, the IV. conjugation verb *mjinavs* 'I am sleeping,' aor. *mejina* has only one actant and that in the DAT: *mas ejina* 'he slept'; note the impossibility of **mas is ejina*.

⁴This situation is typologically similar to that of Russian, where perfective verbs, which are for the most part telic, have only a nonpast and a past, while (nonderived) imperfectives, which are generally atelic, have a nonpast, a past, and a future.

⁵In fact, the change of state denoted by this verb is more typical of II. conjugation verbs than I. conjugation verbs; cf. *a+laparakdeba* 'begin to speak.'

⁶This has as a consequence a significant increase in the number of intransitive I. conjugation verbs, and a corresponding decrease in the correlation between formal class and semantic class.

⁷Exceptions to this are asyllabic verbs in *-eb-*, *-ob-*, which lose the future stem formant in the perfect; e.g., *miuġia* from *miuġebs* 'receive,' *gaubia* from *gaubobs* 'warm.'

⁸Characterizations of the verbs are according to the system in GDW (1:xxxv-xxxviii).

⁹Note also \emptyset =*upatakenbs* (RM² in GDW, I. conj. in KEGL) perfect *upataknia* 'report about sthg. to s.o.,' which according to our criteria should be viewed as I. conj., but has a III. conj. perfect form. The following example (KEGL) shows the transitivity and telicity of this verb: *Brigadam ukve upataka socialistur valdebulebata gadačarbebī šesruleba*. "The brigade already reported to them the over-fulfillment [direct object] of its socialist obligations."

¹⁰Excluded from consideration here are those verbs which have two present series stems, one with *i-* and the other without, such as FUT *miuġebs*, PRES *iġebs* or *ġebulobs*.

¹¹Note that this form also occurs with DC: pres. *mšvelis*, fut. *mišvelis*, pf. *ušvelnia čemtvis*.

¹²Note that we regard changes in preradical vowel (changes in version) as basically derivational when between paradigms, i.e., the difference between *dačers*, *daičers*, *daučers*, *daačers* would be regarded as derivational.

¹³"Indirect verbs" and passives of state generally share a common stative meaning.

¹⁴DC verbs with the circumfix *e...-eb-(a)* in both the present and future series will be regarded as II. conj. So, for example, the verb *ga=ecineba* 'laugh,' which is IV. conj. in GDW, will be regarded as II. conj.

¹⁵GDW treats *hgavs* as PSO; a distinct verb *da=egvaneba* (RP¹) 'become similar to' is also given there.

¹⁶This classification is valid only for those verbs that have both present or future series screeve and aorist series screeves.

¹⁷In this respect, it is interesting to note that the Dative Construction is far more common with verbs of the N-group than with verbs of the E-group.

¹⁸In a few instances the perfect participle is no longer derivable from the verb form. Nonetheless, it still serves as the basis for the absolute II. conjugation perfect series. This is a further indication of the basically

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derivational nature of this series. As an example, consider the following: From the verbs *lpēba*, *lxveba* the present perfects are: *dampala*, *gamxvali* (KEGS, p. 539), derived from the participles *dampali* (< **da-m-pl-ar-i*), *gamxvali* (< **ga-m-lxv-ar-i*). But these participles cannot be generated synchronically from the purely verbal forms of *lpoba*, *lxoba*.

¹⁹For defective paradigms in III. conjugation verbs see Holisky 1981.

²⁰Other sources may give different series forms for these verbs; see below on conflicting views on the paradigm of a verb.

²¹It might be argued that in a number of instances the semantics of a given verb do not favor the formation of certain series screeves. But examples exist of verbs with similar semantics where one verb will be defective and the other not. Examples:

IV. conj.

Pres.	minda 'I want'	msurs 'I wish, desire'
Fut.	mendomeba	mesurveba
Aor.	—	mesurva
Pres.	mkvia 'my name is'	mirkvia 'my ___'s name is'
Fut.	merkmeva	—
Aor.	merkva	—

III. conj.

Pres.	cekvavs 'dance'	rokvavs 'dance'
Fut.	icekvebs	—
Aor.	icekva	—

²²GDW also lists Ø=*a-kocebs* (T³). But, the form *ukocnia* (and not **ukocbia*) is given as the present perfect.

PROTO-NORTHWEST CAUCASIAN (OR HOW TO CRACK A VERY HARD NUT)

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In addition to all their other linguistic complexities, the Northwest Caucasian languages (Circassian, Kabardian, Ubykh, Abkhaz, and Abaza), have resisted all efforts to reconstruct their parent language, Proto-Northwest Caucasian (henceforth "PNWC"). Kuipers (1963) gives a good characterization of the problem. In short, because of a small number of basic roots utilized to form the lexical inventories of these languages, sets of "cognates" often represent repetitions of the same root and so really do not represent additional evidence for a sound correspondence. To this I must add that there are simply few evident correlations to be found, even with an experienced eye and much scientific imagination. As Dumézil himself said, "nothing is simple in the Caucasus" (Dumézil 1937:131).

Dumézil was aware of the problem of reconstruction early in his career and tried to overcome it by imposing upon his comparative program organizational strictures from the level of morphology (1932, 1933a, 1933b, 1937; Dumézil and Namitok 1938). He thus examined two independent levels of inherited material (phonological reflexes and morphological patterns) in an effort to show a genetic relationship and to draw some of the lineaments of the parent language. In his use of morphology Dumézil was far ahead of his day. Later, utilizing more conventional comparative techniques, he had some modest success for a small range of lexical items (Dumézil 1971, 1972, 1974, 1975; Dumézil and Esenç 1971, 1972, 1973, 1974, 1975).

Several Soviet scholars have undertaken comparisons at the family or branch levels (for example, Lomtadze 1953, 1960; Šakryl 1968, 1971; Bgažba 1964:31; Abdokov 1983; Čirikba 1986). Most of these works stop short of the detailed reconstruction of proto-forms. The only exception to this is the ambitious work by Abdokov. In his effort to reconstruct a proto-language for the northern Caucasian language phylum Abdokov still respects the various proto-languages at the lower family levels, Proto-

Northwest Caucasian and Proto-Northeast Caucasian. The Proto-North Caucasian that emerges, however, is highly complex (see for example the five lateral affricates in Abdokov 1983:66) and many of the forms cited in support of correspondences show some irregularity or complexity that needs further elaboration. There is also the occasional minor error, such as /cʷa/ for Ubykh /cʷəyà/ 'house' (p. 133). Nevertheless, this book must be viewed as a major step toward the attainment of a Proto-North Caucasian language. Certainly the old claim that the Northwest and Northeast Caucasian language families are related gains a new degree of plausibility from this work and the general lineaments of the mother language may now be grasped.

The most successful historical work to date within Northwest Caucasian is at the sub-family level of Proto-Circassian. Here, Kuipers (1963, 1975, 1987) has built upon the earlier work of Jakovlev (1930), Lomtadze (1953), Rogava (1955, 1958), and Šagirov (1962) to produce an accurate and detailed Proto-Circassian language, at least for the roots of the language. Kuipers is of course aware of the peculiar problems these languages present to the historical linguist and for the most part he has surmounted them. Some of his forms, however, are subject to further analysis, as for example P(roto-)C(ircassian) */ɣʷačʰyə/ 'to lead someone to somebody' (1975: 34), and */ɣʷaʃə/ 'to lie down' (p. 45), built upon */-čʰy-/ 'to lead out' and */-ʃ-/ 'to be lying somewhere,' both of which have a prefix /ɣʷa-/ which lends to a verb root a sense of goal or "telos," (cf., both West Circassian (WC) and Kabardian /ɣʷaaza/ with the sense of 'to be oriented' or 'guide,' i.e., to be turned toward a goal, built upon /-za-/ 'to turn'). Thus they lose their value as additional evidence for */čʰy/ or */ʃ/. Kuipers himself often suggests these parallels. Despite these hidden repetitions of roots Kuipers has been able to build up a sound body of data for PC.

For the case of PC */čʰw/, however, even Kuipers fails to find more than four sets of cognates (two of which have only a WC attestation and so are really not cognate sets at all) and all of which may involve repetitions of a basic root */-čʰwə-/ , */-čʰwa-/ 'to rub, slide.' Kuipers has taken the WC forms to have preserved

the PC phoneme. The forms involved are given in (1). Kuipers (1975:30, §31, 93) used Temirgoy for (1, a, b), but Bzhedukh has all the forms.

- | | |
|------------------------------------------------------------|-----------------------------|
| (1) West Circassian - Kabardian Correspondences for */čhw/ | |
| Bzhedukh | Kabardian |
| (a) /bza-g ^w ə-ra-a-čhw/ | /bza-g ^w ə-ra-f/ |
| tongue-surf(ace)-inst(rument)-conn(ective)-slide | tongue-surf-instr-slide |
| 'to slur ones speech, to mumble' | id. |
| (b) /ʁa-bɣ ^w ə-čhw/ | --- |
| foot-side-slide | |
| 'to shuffle along on the outsides of ones feet' | |
| (c) /ʔa-bə-čhwa/ | --- |
| hand-hollow-slide | |
| 'mitt' | |
| (d) /-čhwaaxwa-/ | /-faaxwa-/ (Besleney) |
| 'to crawl, creep, slide' | 'to crawl, rub against' |

To overcome the problem presented in (1) one must do two things. First, one must turn to a reliably reconstructed pattern in the proto-language. Second, one must use this pattern to establish correspondence sets at the level of phonological features. That is, one must go below the level of the phoneme. This may seem surprising at first, but modern phonology has been working at this level for fifty years.

For the present problem of PNWC */čhw/ I must turn to Kuipers' well-established source feature contrasts for PC. Taking the labial stops as examples, the correspondences are as in (2). Here WC stands for West Circassian (Bzhedukh), and EC for East Circassian (Kabardian). Bzhedukh and Shapsegh WC preserve the PC system. There is abundant evidence of a conventional historical sort for the correspondences in (2)

(2) Proto-Circassian Source Feature Contrasts

WC	EC	PC
p ^h	p	*p ^h
p	b	*p
b	b	*b

p' p' *p'

Kuipers has extended this pattern to the rounded alveolo-palatals, as in (3). In East Circassian the coronal component has been lost, while the labialization persists as a labio-dental spirant.

(3) Rounded Alveolo-Palatals

WC	EC	PC
č ^{hw}	f(Besleney)	*č ^{hw}
č ^w	v	*č ^w
ž ^w	-	*ž ^w
-	-	-
š ^w	f	*š ^w
ž ^w	v	*ž ^w
š ^{'w}	f'	*č ^{'w} (JC; *š ^{'w} - Kuipers)

There is ample evidence for PC */č^w, č^{'w} (š^{'w}), š^w, ž^w/. The evidence for */č^{hw}/ has been given in (1). There are no cognate sets for */ž^w/ (Temirgoy /-ž^w-/ 'to dam, fill, block up,' /ħanž^wa/ 'haystack, rick' (Kuipers 1975:30, §33)), so PC */ž^w/ actually has no evidence for its existence. The existence of PC */č^{hw}/ can, however, be shown to have excellent evidence supporting it, while that of PC */ž^w/ can be shown at least to be consistent with the overall pattern of the proto-language.

To demonstrate these two claims one must make the hypotheses in (4). These are sound laws at the level of distinctive features and all have ample evidence of a conventional sort supporting them.

(4) Sound Laws at the Distinctive Feature Level

- (a) PC *[+aspirated] → WC [+aspirated], EC [-voiced]
- (b) PC *[+round, +coronal] → WC [+round, +coronal], EC [+labial, -coronal]
- (c) PC *[+voiced] → WC, EC [+voiced]

Taking (4, a) and (4, b) one can posit the developments in (5).

(5) Proto-Circassian */č^{hw}/

*č^{hw}/ → WC /č^{hw}/, EC /f/ (with [+coronal, +anterior, +high, +round] → [-coronal, -high, -round, +labial])

Thus, the two true cognates in (1) are not the only evidence for PC $*/\check{c}^{hw}/$. Rather, all the numerous cognates that attest to the pattern in (2) can be called upon to strengthen the case for this otherwise rare proto-phoneme so that its existence in the proto-language is assured.

The case for PC $*/\check{z}^w/$ remains one of plausibility abetted by consistency. The laws in (4) permit the prediction of the form of the East Circassian (Kabardian) cognates, should they ever be found, (6).

(6) Proto-Circassian $*/\check{z}^w/$

PC $*/\check{z}^w/ \rightarrow$ WC $/\check{z}^w/$, EC $/v/$ ($*/-va-/$ 'to dam, fill, block up,' $*/\check{h}anva/$ 'haystack, rick').

Thus, PC $*/\check{c}^{hw}/$ is assured, while $*/\check{z}^w/$ is plausible. With this reasoning, filling the hole for $*/\check{z}^w/$ in PNWC becomes not merely a compulsive gesture toward symmetry, but a principled inclusion based upon overall organizational principles of the language's phonology and numerous cognate sets at the distinctive feature level. Positing $*/\check{z}^w/$, therefore, asserts that a particular bundle of such features could have existed in PNWC, while explaining the persistence of this bundle (WC $/\check{z}^w/$) in one of the daughter branches.

Some progress has been made beyond the level of the branch. Šakryl (1968, 1971), Bgažba (1964:31), Abdokov (1983), Čirikba (1986) have established such correspondences as (7). Here Abx stands for Abkhaz, Abz for Abaza and Bz for the highly conservative Bzyb dialect of Abkhaz.

(7) Some Proto-Northwest Caucasian Correspondences

WC	EC	Abx	Abz
š	š	š(Bz)	s
č ^w	v	č ^w	č ^w
š ^{'w}	f'	č ^{'w}	č ^{'w}
š ^w	f	š ^w (Bz)	š ^w
ž ^w	v	ž ^w (Bz)	ž ^w
x	x	h	h
γ	γ	γ("aa")	γ

x ^w	x ^w	h ^w	h ^w
ɣ ^w	ɣ ^w	ɣ ^w (y ^w in Bz)	ɣ ^w

Despite such sound correspondences numerous irregularities remain (8), and no one has explained these. In fact, they do not seem to be recognized as serious exceptions, but are viewed largely as part of the essential "noise" that seems to accompany the complex disentanglement of Northwest Caucasian history.

(8) Unexplained Irregularities in Sound Correspondences

WC /šwa-/ 'to drink of, from,' Bz Abx /-žw-/ id.,

but:

WC /šwa/ 'you (pl),' Bz Abx /šwa-(ra)/ id.

WC /-žwa-/ 'to boil,' Bz Abx /-žw-/ 'to boil, cook'

A few systematic shifts have been claimed (9) (Wim Lucassen, personal communication) that can shed some light upon irregularities of this sort. Here C stands for general Circassian, either a West Circassian or East Circassian dialect, U stands for Ubykh.

(9) Some Possible Special Developments

(a) Circassian Derounding:

C /də/ 'outside,' Abx /(a-)dʷə/ 'field,' U /dʷə(-sʷəX)/ 'steppe'

C /-də-/ 'to sew (tr.),' U /-dʷ-/ id.

(b) Ubykh and Circassian interchange of /y/ and /w/

C /-w-/ 'to strike (outward),' U /-ya-/ 'to strike'

C /-kʷa-/ 'to come/go (intr.),' U /-kʷa-/ id.

But compare: C /wa/ 'you,' U /wə(-ɣʷà)/ id.

The processes in (9) may in fact have played a role in the history of PNWC, but in point of fact, to make any significant progress beyond the level of the branch one must make a number of assumptions about morphological, phonological and phonetic processes in the parent language, (10). Once these are employed, success is rapid. One can even reconstruct proto-forms for the numerals from one to ten, a semantic field otherwise showing drastic superficial divergences. In (10) AA stands for Abkhaz-

Abaza, a form common to all or most dialects of this branch, U for Ubykh, NEC for Northeast Caucasian, C for Circassian or consonant, and V for vowel.

(10) Proto-Northwest Caucasian had:

(a) Ablaut, at least of /ə/ ~ /a/

(b) Old consonantal coloring due to "normal" vowels

*Cu → Cwə, *Co → Cwə

*Ci → Cyə, *Ce → Cyə

(c) Consonantal coloring due to root glide

*CyV → CyV (in U and perhaps AA, but in C *CyV → CVy)

(d) Frozen pre-verbs (pV), especially /-w-/ 'aspect,' 'valence,' 'causative'

(e) Old grammatical class system, (cf. the NEC languages); levelled in varying ways within and across languages. These prefixes are of unclear semantic function and are glossed as 'cl.'

*ø-, *w-, *y-, *p-/p'-, (*t-), (*ɾ-/h-)

(f) Complex cluster effects, both from old clusters, compounds and vowel loss operating on multi-syllabic words.

Anyone who has worked with these languages soon recognizes that ablaut (10, a) has played an extensive role in their history and some role even in the present grammars. I shall not address ablaut further here.

The process of consonantal colouring due to a following vowel or glide (10, b, c) appears to have given rise to the rich consonantal systems as syllabic nuclear coloring migrated out to the syllable onset. This process of marginalization simultaneously gave rise to the vertical vowel systems, the nucleus being stripped bare of all features save [+low], the one feature incompatible with almost all consonantal articulations (Colarusso forthcoming). Frozen preverbs (10, d) are simply a verbal variant of the next phenomenon, grammatical classes, (10, e). Most of the cognates in this family are hidden because the languages have levelled off an old grammatical class system in varying ways. The surviving grammatical class prefixes are primarily reflected as secondary rounding or palatalization on the consonant. This assumption produces a PNWC that closely resembles a Northeast Caucasian

language.

Johanna Nichols (personal communication) has suggested that grammatical class may not be old in the Northeast Caucasian languages and that some alternative mechanism might be at work in PNWC history. If this proves to be so, then (10, e) might have to be replaced by some combination of umlaut and varying suffixation, as in (11). (N = a sonorant consonant.)

(11) Possible Alternative to Grammatical Classes

- (a) *CaN-i → *CäN-i → *CyäN → Cya
 (b) *CaN-o → *CoN-o → *CʷoN → Cwa

Hypothesis (10, e) is simpler than (11), and thus I shall utilize (10, e) until compelled to do otherwise. Its usefulness in the following will be enormous.

Finally, (10, f) is the least well understood assumption. Cluster effects are real, but complex, often involving all the effects of (10). Also, the various branches differ in their assimilatory behaviour across a cluster. Ubykh differs from the Circassian languages largely in the way in which it assimilates source features across clusters. Today Ubykh assimilates from right to left, but this seems to be due to Circassian influence. The historical work of reconstruction proceeds more smoothly if one assumes that in the past Ubykh assimilated from left to right, (see, for example, (82) 'water, river'). In Abkhaz-Abaza old original clusters appear to have been simplified, usually by dropping the first member. All present clusters appear to be relatively recent within this branch. Cluster effects, however, deserve much fuller study.

With (10) one can proceed to recognize cognates where none was apparent before. From these one can proceed to a type of sound correspondence, involving morphological complexity. When a certain amount is done, the overall lineament of PNWC emerges as in (12). PNWC */ʁh/ is in parentheses because while there is evidence for it, that evidence is difficult (the reflexes suggest an early shift */ʁh/ → */ʂh/) and I have not included it here.

(12) Tentative Proto-Northwest Caucasian Phoneme System

p ^h	p	b	p'	-	-	m	w
t ^h	t	d	t'			n	
ch ^h	c	ʒ	c'	s	z	r	
(ʁ ^h)	ʁ	λ	ʁ'	-	-	l	
č ^h	č	ʒ̣	č'	ś	ž		
č ^h	č	ʒ̣	č'	š	ž		y
k ^h	k	g	k'	χ	ğ		
q ^h	q	-	q'	x	γ		
				ḣ	ʕ		
			ʔ	h			
i	u						
(e)	ə,(o)						
	a						
[stress]							

To lend further support to (10, d, e) I adduce here forms that exhibit these sorts of variation either within a language or across a branch, (13-17). There are number of assumptions in these and all following examples, such as, for example, PC */h^w/ → */χ^{hw}/ in (13, a). In most cases there is evidence in other examples that support these, or I have evidence for them, but have not had room to publish this supporting evidence here. In (15-17) PU stands for Proto-Ubykh.

(13) 'soaring'

PC */-w-ḣaarza-/ → */-h^waarza-/ → */-χ^{hw}aarza-/ → EC
/-χ^waarza-/ 'to soar, hover'

PC */-ḣaarza-/ → WC /-ḣaarza-/ id.

(14) 'to laugh'

PC */-yə-ṣ̌ə-/ -at-laugh- → Bzh WC /-ṣ̌yə-/ 'to laugh at someone'

PC */-ṣ̌ə-da-/ -laugh-derivational suffix → Bzh WC /-ṣ̌əda-/ 'to chide someone'

(15) 'to be, exist'

PU */-w-t-/ → U /-tʷ-/ 'to be, exist'

PU */-t-/ → U /-t-/ 'to be, exist (indefinite present or adverbial senses)'

(16) 'horse'

PU */y-čʰə-/ → U /čʰə/ 'horse'

PU */y-čʰa-/ → U /čʰa/ 'horseman'

PU */čʰə-də-/ → U /čʰədə/ 'donkey'

(17) 'mouth'

PU */y-č'a-/ → U /č'a/ 'mouth'

PU */č'a-pʰa-/ → U /č'a-fa/ 'mouth-nose' = 'front'

Turning now to cognates across the whole family, I give in (18-25) evidence for forms that have been affected by a following vowel, (10, b). It is at present impossible to distinguish between these cases and ones in which all reflexes have levelled their grammatical class patterns in favor of the same prefix. That is, I cannot yet distinguish, for example, between *Co and *w-Ca levelled across all daughter languages.

It is noteworthy that apart from a final consonant, /-b/, which is based on Northeast Caucasian evidence, Abdokov independently reconstructs (18) just as I have done (Abdokov 1983:54). In these forms Bzh stands for Bzhedukh, Besl for Besleney, PAA for Proto-Abkhaz-Abaza, Bz for Bzyb Abkhaz and PIE for Proto-Indo-European.

(18) 'sky'

PNWC */zo-/ → U /zʷa/ 'sky,' 'upward/downward'

PNWC */zo-ɣo/ → PC */zʷaaɣʷa/ WC /zʷaaɣʷa/ 'star,' EC

/vaaɣʷa/ id. (*CaaCa from Indo-Iranian influence.)

PNWC */zo-ɣo-n-/ → PAA */zʷaaɣʷən-/ → Bz Abx /a-zʷywan/,

/a-zʷyan/ 'sky,' /zʷywantw/ 'heavenly,' Abx /a-zʷɣwan/ 'sky,'

Abz /zʷɣwand/ id.

(19) 'you (plural)'

PNWC */so-/ → PC */šwa/ → WC /šwa/ 'you (pl),' EC /va/ id.

PAA */śwa-ra/ → Bz Abx /śwa-ra/, Abx /śwa-ra/, Abz /śwa-ra/
id.

PU */śwa-γwà/ → U /swə-γwà/ id. (back formation from reduced
prefixal form)

(20) Semitic */xuka/ 'pig' (Arabic /xuk/) → PNWC */ħuqa/
PNWC */ħuqa/ → */ħwqwa/ → PC */ħwqhwa/ → WC /qhwa/, EC
/qwa/ 'pig'

PU */ħwqhwa/ → */ħwḡwa/ → U /ḡwà/ id.

PAA */qwa/ → Abx /a-ḡwa/, Abz /ḡwa/ id.

(Note Chechen /ħaqa/ id. (Trubetzkoy 1930:84, #53).)

(21) 'skin'

PNWC */co/ → early PC */cwa/ → PC */śwa/ → WC /śwa/, EC
/fa/ 'skin'

U /cwa/ id.

Abx /a-čwə/, Abz /čwə/ id.

(22) 'to slide, crawl'

PNWC */-čhu-xo-/ → PC */-čhwaaxwa-/ → Bzh WC /-čhwaaxwa-/,
Besl EC /-faaxwa-/ 'to crawl against, rub against'

PU */-čhwəxwa-/ → U /-(la-)swəxwa-/ 'to rub (against)'

? Abz /-šwḡwa-/ 'to drag, pull off or down'

(23) 'ox'

PNWC */cu/ → PC */čwə/ → Bz WC /čwə/, EC /və/ 'ox'

U /cw/ (/ā-cw/) 'ox' ('the-ox')

Abx /a-čw/, Abz /čwə/ id.

(24) 'house'

PNWC */ḡuna-(śo-)/ 'house'-(debate, decree)' → PC

*/wəna(aśwa)/ → C /wəna/ 'house,' WC /wənaaśwa/, EC

/wənaafa/ 'legal decision, decree'

U /γwənaswà/ 'discourse'

PAA */γwənà/ → Bz Abx /a-ywnəc/, Abx /a-γwnà/, Abz /γwna/
'house'

(25) 'two'

PNWC */t'q'o/ → PC */t'ɣwə/ → C /t'ɣwə/ 'two'

PU */t'q'wə/ → U /t'q'wa/ id. (originally 'twice')

PAA */t'q'wə/ → */t'ɣwə/ → */ɣwə/ → Bz Abx /yʷ-/,

Abx, Abz /ɣwə/ id.

(cf. PIE */d(u)wo/, */d(u)wō/, New PIE */t'(u)wo/, */t'(u)wō/

'two' ← ? */t'ɣwə/, */t'əɣw/ (via levelling) ↔ PNWC */t'q'o/

or PC */t'ɣwə/ ?)

I frankly do not know what to make of Tefvik Esenç's odd Hakuchi forms for 'two,' which show /tqʷ/ (Kuipers 1987: 89), other than to dismiss them as dialect developments within Circassian.

As (25) shows, these techniques of reconstruction can lead to tantalizing comparisons between Proto-Northwest Caucasian and Proto-Indo-European. For the present I consider these comparisons to represent old borrowings between the two languages, which must have been adjacent at a remote period, though the possibility of some remote relationship cannot be ruled out and deserves further scrutiny.

In (26-27) I treat the few instances of consonantal coloring due to a glide in the root. This process (10, c) can only be distinguished from (10, b, d, e) by the fact that the Circassian branch shows metathesis of non-round glides, rather than consonantal coloring. Thus, the Circassian branch preserves the glide.

(26) 'difficulty'

PNWC */qyən/ → PC */qəyn/ → WC /qəyən/, EC /q'əyən/

'difficulty'

U /q'yən/ id.

(27) 'innocence'

PNWC */xə-yà/ innocence-adjective → PC */xəya/ → WC /xəya/,

EC /xay/ 'innocent'

PU */xəyà-z/ innocent-turn (?) → */xəyaz/ → U /x'yaz/ 'fault, culpability'

The next section (28-63) deals with forms that resulted from the levelling of an old grammatical class system. In some ways this is the most prolific use of the assumptions in (10). The forms are numerous and relatively simple, yet in some cases I have not been able to gloss all the components in a proto-form. I have proceeded to partition some of these forms, despite this, because many of the resulting morphemes recur elsewhere. The worst failing here is that the semantic function of this old system of prefixes has been obscured. This very obfuscation is the cause of the collapse of this system. Here K stands for Kabardian and Abdx for Abadzakh, grammatical class prefixes are glossed merely as 'cl,' and pV is preverb. Forms with zero class marker are unmarked.

(28) locative on nouns

PNWC */w-gə/ → C /-gʷə/ 'general locative on NPs'

PNWC */w-ga/ → C /-gʷa-/ 'beside, next to' (pV)

PNWC */-ga/ → U /-ɣa/ 'locative case'

(29) 'bread'

PNWC */y-čha/ → Abx /a-čya/ 'bread'

PNWC */y-čhə-q'o/ → PC */čhyaq'wa/ → */č'yaaqhwa/ → Bz WC
/č'yaaqhwa/

K EC /s'aaqwa/ id.

PNWC */w-čhə-q'o/ → PU */čhwəq'w-ba/ → */čhwəɣwba/ → U
/sʷəbə/ id.

PNWC */čhə-q'o/ → PAA */čhəq'wa/ → Abz /čəɣw(-ra)/ id.,
(Abz /č'yaaq'wa/ is a WC loan)

As (29) illustrates, in Abkhaz-Abaza Circassian aspirated uvular stops are borrowed into the languages as pharyngealized uvulars, these being facultatively aspirated.

(30) 'hundred'

PNWC */śa/ → C /śa/ 'hundred'

PNWC */w-śa/ → U /śwə/ id.

Abz /šw-(k'ə)/ id., (hundred-(one) = 'one hundred')

(31) 'old'

PNWC */žə/ → C /-ž/ 'old'

PNWC */w-ʒə/ → U /ʒwə/ id.

PAA */ʒwə/ → Bz Abx /aʒw/, Abz /(a)ʒw/ id.

(32) 'lovely'

PNWC */nə-χa/ 'eye-lovely' → PC */naaχa/ → C /daaχa/
'beautiful'

PNWC */nə-w-χa/ → U /a-nəχwa/ ("a-nəswa") 'the-beautiful'
(epithet)

In (32) I have restored the Ubykh /χw/ (mistranscribed by all as "sw") on the basis of phonetic analysis (Colarusso forthcoming). The shift of */n/ → /d/ in Circassian is irregular and is due to loss of sonority by assimilation to the following nonsonorant spirant.

(33) 'shoulder'

PNWC */p-λə-ʔə/ → C /p'λ'a/ 'shoulder'

PNWC */p-λə-ʔə/ → U /p'λ'ə-fa/ shoulder-front = 'chest'

PNWC */w-λə-ʔə/ → PAA */λwəʔə/ → */ʒwq'a/ → */ʒwswa-/ →
Abx /a-ʒwswa-(xə-r)/ the-shoulder-(head-derv) = 'shoulder (the
round part),'

Abz /ʒwswa-qə/ shoulder-head = 'shoulder (the round part)'

(34) 'ten'

PNWC */p'-ʒə/ → C /p's'ə/ 'ten'

PNWC */w-ʒə/ → U /ʒwə/ id.

PNWC */w-ʒə/ → PAA */ʒwə/ → Bz Abx /ʒwa-/ , Abx /ʒwa-/ , Abz
/ʒwa-/ id.

(35) 'year'

PNWC */χà-s/ → PC */χas/ → C /(yə-)χas/ 'year'

PNWC */w-χà/ → PU */χwà/ → U /šwà/ id.

PNWC */χà-ku-ś/ → PAA */šəkws/ → Abx /a-šəkws/, Bz /a-šəkws/
(Kaldaxwara sub-dial. (Bgažba 1964:68-70)) id.

PNWC */ku-śə-χà/ → PAA */kwsšə/ → Abz /skwsšə/ id. (by
metathesis)

(36) 'shelter, locus of an action'

PNWC */y-śa/ → PC */-śya/ → Bz WC /-a-śy/, K EC /-ś/
 'shelter'

PNWC */-w-śa/ → U /-śwa/ 'locus of an action'

(37) 'shelter'

PNWC */-y-xa/ → PC */-χya/ → */-śya/ → homophonous with
 (36) in C

U /-xya/ 'shelter'

AA /-xya/ id.

(38) 'word'

PNWC */y-śə-ʔa/ → PC */śyəʔa/ → Bz WC /(gʷə-)śyəʔa/,

Shaps WC /(gʷə-)śyaaʔa/ 'word,' 'conversation'

PNWC */mə-ha-śà/ → PU */m-ah-śà/ → U /maśà/ 'word'

PNWC */ha-w-śə-ʔà/ → PAA */haʔʷəʔà/ → Bz Abx (Kaldaxwara
 sub-dial.?) /aʔʷa/, Abz /aʔʷa/ id.

(39) 'bear'

PNWC */mə-śà/ → C /məśa/ 'bear'

PNWC */mə-w-śà/ → U /məśwà/ (/â-mśwa/) id.

PNWC */mə-w-śə/ → PAA */mśwə/ → Abx /a-mśw/, Abz /mśwə/
 id.

(40) 'three'

PNWC */y-χə/ → Early PC */χya/ → */śya/ → Bz WC /śya/, K EC
 /śə/ 'three'

PNWC */y-χa/ → PU */χya/ → U /śà/ id. (originally 'thrice')

PNWC */χə/ → Abx /xə-/, Abz dial. /χə-/ id. (J. C. Catford,
 personal communication)

(41) 'nine'

PNWC */bə-w-γə/ much-cl-nine → C /bγwə/ 'nine' (see 'ten' (34))

PNWC */bə-y-γə/ → U /bγə/ id.

PNWC */wə-y-γə/ → PAA */wγwə/ → */ǵwə/ (?) → Bz Abx /ǵw-/,
 Abx /ǵw-/, Abz /ǵw-/ id.

(42) 'horse'

PNWC */čʰə/ → PC */čʰə/ → Bz WC /šə/, Besl EC /čə/ 'horse'

PAA */čʰə/ → Abx /a-čə/, Abz /čə/ id.

PNWC */y-čʰə/ → U /čʰə/ id.

PNWC */y-čʰa/ → U /čʰa/ 'horseman'

PNWC */čʰə-də/ → U /čədə/ 'ass'

PNWC */čʰa-da/ → Abz /čada/ 'ass'

(43) 'butter'

PNWC */t'-xu/ → C /txwə/ 'butter' (with an Ubykh-like cluster assimilation !)

U /txwə/ id.

PNWC */(t'-)xu/ → Abz /xw-ša/ 'butter'

? U /xwəq'ə/ ('swəq'ə') 'oil, vegetable oil' (but note Abz /š-ša/ 'vegetable oil,' so that the U may really be /swəq'a/ ← PNWC */w-šə-/)

(44) 'churn'

PNWC */t'-xu-w-à-ʃa/ butter-cl-con-lie = 'churn' → PU

*/txwəwəʃa/ → U /txwəwəʃa/ id.

PNWC */t'-xu-y-à-ʃa/ → U /txwəyàʃa/ id. (U /t'q'waʃa/ is a C loan)

PNWC */t'-xu-à-ʃa/ → */t'xwaʃa/ → PC */t'q'waʃa/ → Abdx WC /t'ɾwaʃa/ id.

(45) 'a mass' (a pre-verbal particle, henceforth 'pV')

PNWC */-hə-/ → PC /-hə-/ → */-χhə-/ → C /-χə-/ '(out of) a mass' (pV)

PNWC */-w-hə-a-/ → */-wha-/ → U /-wa-/ '(into) a mass' (pV)

(46) 'chest, breast'

PNWC */bəq'ə/ → C /bʁa/ 'chest, breast'

PNWC */(y-)bəq'ə/ → */(y-)p'q'ə/ → U /(gʁə-)p'q'ya(-č'ya)/ heart-chest-side = 'middle of the body,' (perhaps palatalized by surrounding constituents)

(47) 'good'

PNWC */č'ə/ → U /č'ə/ 'good'

PNWC */-w-č'a-/ → PU */-č'wa-/ → U /-š'wa-q'-/ good-say = 'to respect some one, to honor some one' (NOTE: pV's show variable glottalization across the family)

PNWC */w-č'ə/ → PC */č'wə/ → WC /š'wə/, K əC /f'ə/ 'good'

(← ? PIE */ṛsu-/ (= *ṛ₁su-) → Greek /ésu-/ 'good, well,' Vedic /su-/ id., (with lengthening of preceding vowels) ← */ṛs-w-/ 'to be-participle' (Eric P. Hamp, personal communication))

(48) 'waist'

PNWC */mə-ğə/ → PC */mğə/ → C /bğə/ 'waist'

PNWC */mə-y-ğa/ → PU */məɣa/ → U /məɣa(at'wa)/ 'belt, waist'

PNWC */p'ə-ğə/ → PAA */p'ɣə/ → Abx /a-p'q'ə/ 'waist'

(49) 'eight'

PNWC */y-ɣə/ → PC */ɣə/ → C /yə/ 'eight'

PNWC */w-ɣa/ → U /ɣʷà/ id.

PNWC */ɣa/ → Abx /ɣa-/ ("aa-"), Abz /ɣ-/ id.

(50) benefactive pV, 'for'

PNWC */-w-χa-/ → PC */-χwa-/ → WC /-fa-/ , EC /-χwa-/ 'for the sake of someone' (pV)

PNWC */-y-χa-/ → U /-xʷa-/ id.

Abx /-xʷa-/ id.

(51) genitive of alienable possession

PNWC */-y-ɣə-/ → PC */-ɣə-/ → PC */-ğyə-/ → C /-yə-/ genitive of alienable possession

PNWC */-ɣa-/ → U /ɣa-/ possessive prefix

(52) 'testicle' (zero-grammatical class marker in all branches)

PNWC */ğa/ → C /ğa/ 'testicle'

U /ğa/ id.

AA /(a-)ɣa/ id.

(53) 'road'

PNWC */w-γà/ → C /γ^wa-(g^w)/ 'road'

PNWC */mə-y-γà/ → U /məγà/ *id.*

PNWC */mə-w-γà/ → Abx /a-mɾwə/, Abz /mɾwə/ *id.*

(54) 'pear'

PNWC */w-qhà/ → PC */qh^wə/ → Bz WC /qh^wə(-z)/ 'pear'

PNWC */y-qhà/ → PU */qh^yà/ → U /x^yà/ *id.*

PNWC */qhà/ → Abx /a-ħa/, Abz /ħa/ *id.*

(55) 'grave'

PNWC */qha/ → PC */qha/ → Bzh WC /qha/ 'grave' (→ U /qa/ *id.*, a loan)

PNWC */w-qhə/ → PAA */qh^wə/ → Abz /ħwə-g^w/ 'grave-locus'

(56) 'new'

PNWC */y-č'a/ → PC */č'y^a/ → WC /č'y^a/, EC /š'a/ 'new'

PNWC */č'a/ → U /č'a/ *id.*

(57) 'liver'

PNWC */w-cəʔà/ → PC */c^wəʔà/ → */c'wa/ → */š'wə/ → WC /š'wə/, EC /f'ə/ 'liver'

PNwC */w-cəʔa/ → PC */c^wəʔa/ → */š^wəʔa/ → */(g^wə)-š'wəʔa/ heart-liver = 'viandes' → WC /(g^wəʔa-)š'wəʔa/

PNWC */w-càʔə/ → PU */c^wàʔ/ → */(g^yə-)c^wàʔ-ba/ → U /g^yə-)c^wàʔa/ heart-liver = 'viandes'

PNWC */y-cəʔà/ → PAA */č'y^a/ → Abz /č'y^ač'y^a/ 'liver'

(58) 'blue, gray'

PNWC */šə-w-ɾa/ → PC */šɾwa/ → */šq'wa/ → */šxwa/ → WC /šxwa/, EC /šxwa/ 'blue, gray'

PNWC */ɾa-/ → U /ȳa(-q'à)/ 'blue, green'

PNWC */w-ɾa/ → PAA */ȳwa/ → */x̄wa/ → Bz Abx /a-x̄wa/ 'ashes,' Abz /q̄wa/ *id.*

(Abz /ħwəħ^w-čwa/ gray-colour is based on /ħwəħ^w/ 'dove' (V. A. Chirikba, personal communication))

- (59) 'wood, stick' (zero grammatical class in all branches)

PNWC */(ʁan-)chʰa/ → Bzh WC /hanchʰa/ 'wooden spade'

U /ȳaanca/ 'digging stick'

(PNWC */chʰa/ → Bzh WC /(ɣwər)chʰa/ 'brushwood, shrubbery,'

/(qwa(n))chʰa/ '(small) hook'

PNWC */chə/ → U /sə/ 'lumber'

- (60) 'arm'

PNWC */ʔa/ → PC */ʔa/ → C /ʔa/ 'arm'

PU */q'a-a-phʰa/ arm-conn-tip → U /q'aap'a/ 'arm, hand'

PAA */ʔa/ → Abx /ʔa-q'a-c'a-ra/ the-hand-set-inf = 'to make, do' (Dumézil (1972:11) sees 'to be' in Abx /q'a-!)

- (61) 'five'

PNWC */w-čχə/ → PC */čwχwə/ → */tχwə/ → WC /tfə/, EC /tχwə/ 'five'

PNWC */y-čχə/ → PU */čyχyə/ → U /šyχə/ id.

PNWC */w-čχə/ → PAA */čwχwə/ → AA /xwə-ba/ id.

- (62) 'heart'

PNWC */w-gə/ → C /gʷə/ 'heart'

Abx /a-gʷə/, Abz /gʷə/ id.

PNWC */y-gə/ → U /gʷə/ id.

- (63) 'man'

PNWC */w-ğə/ → PC */ğwə/ → */wə/ → Bzh WC /(šhə-)wə/ (horse-)man

PAA */ɣwə/ → */ʁwə/ → AA /-ʁw/ 'man, agent'

PNWC */w-ğə/ → U /a-ɣwə/ the-man = 'self,' and pronoun sfx

- (64) 'slave' (borrowing from Iranian)

Proto-Iranian */wir-ya-ka-/ man-ly-Adj- → Iron Ossetic /læɡ/ 'man' → Abz /læɡ/ 'slave' (contrast Abx /a-t'wə/ id.)

(Bielmeier 1977:80-85)

Ossetic /læɡ/ → PC */rag/ → */garə/ → C /ɣarə/ 'slave'

PU */rəg/ → */gər/ → U /γər-/ *id.*

PU */rag/ → */garə/ → */a-y-garə/ the-cl-slave → U /a-gyarə/
 'slave,' (with separable /a-/, as in /s-à-aw-gyarə/
 my-/a-/poss-slave (Vogt 1963:84, §13))

As with any other type of sound shift, those involving old class prefixes can show complications. In this case there seems to have been an ordered sequence of shifts, probably reflecting phonetic details and propensities of the mother tongue. The data here is scanty, and complex, so that this analysis must be taken to be provisional, particularly since there are only three good examples of each.

First, one must invoke the shift exemplified in (65-67), which involves fronting a palatal spirant (derived from an earlier laryngeal in one case) to an alveolo-palatal position.

(65) 'land, region'

PNWC */χa/ → PC */χa/ → Bzh WC /χa-k^{hw}/ region-core =
 'land,' C /-χ(a)/ 'region'

PNWC */w-χa/ → PU */χ^wa/ → U /š^wa(-bla)/ region(-passing) =
 'country'

(66) 'sea'

PNWC (? */hə/) → */χ^hə/ → C /χə/ 'sea' (*cf.*, (45) 'a mass')

PNWC (? */w-ha/) → */w-χa/ → PU */χ^wa/ → U /š^wà/ *id.*

(Abx /a-mšən/ the-sea, 'sea,' is then not related.)

(67) 'to write'

PNWC */-thə-χə-/ surface-write → PC */-tχə-/ → C /-tχə-/ 'to
 write (tr.)'

PNWC */-w-χə-/ asp-write → PU */-χ^wə-/ → U /š^wə-q'à/
 write-past = 'book, letter'

(?? PAA */-χ^wə-q'à/ → Abx /a-š^wq'wə/, Ashkharwa Abx /š^waq'à/,
 Abz /š^wʔa/*id.* (with odd developments in the vowels and a
 peculiar /ʔ/ in Abaza (a loan ?)))

PNWC ? */-w-ʔa-χə-/ aspect-(in) hand-write → PAA */-ʔ^wa-χə-/
 → */-ʔ^wχə-/ (from inflected forms with preceding consonant)→

*/-ɣʷɣʷə-/ → */-ɣʷə-/ → Abz /-ɣʷ-/ 'to write'

V. A. Čirikba (personal communication) considers the Ubykh form in (67) to be a loan from Abkhaz, but the Abkhaz material itself is difficult and I would rather see the direction of borrowing as being from Ubykh into Abkhaz-Abaza. The /ɾ/ in the Abaza form would then be explicable as a peculiarity of this loan.

The next set of shifts involves the backing of an original retroflexed spirant, (68-69) and (80).

(68) 'white'

PNWC */w-šə/ → PC */šʷə/ → */χʷə/ → WC /fə/, EC /χʷə/ 'white'

PU */šʷə/ → U /χʷə/ ("sʷə") id.

PNWC */šə/ → Abx /š-(kʷakʷa)/ id.

(69) 'day'

PNWC */mə-w-šà/ → PC */maašʷa/ → */maaχʷa/ → WC /maafa/,
EC /maaχʷa/ 'day'

PU */məšʷà/ → U /məχʷà/ ("məšʷà") id.

PNWC */mə-šə/ → PAA */mšə/ → Abx /à-mš/, Abz /mšə/ id.

This section gives cognates (70-80) whose variation is due to variations in old verbal prefixes (10, d). Here especially one may note the difference between proto-forms with morphemes that are readily glossed as opposed to those whose components are obscure but appear to recur in more than one cognate set, as for example in (73) and (74).

(70) 'to say'

PNWC */-ʒə-q'a-/ back-say → PC */-ʒə-ɾa-/ → K EC /-ʒə-ɾa-/ 'to say'

PNWC */-w-q'a-/ → PC */-ɾʷa-/ → WC /-ɾʷa-/ id.

PAA */-q'ʷa-/ → AA /-hʷa-/ id.

PNWC */-cu-q'a-/ evil-say → U /-cʷə-q'a-/ evil-say = 'to speak against someone,' (U /cʷə/, (/à-cʷ/) 'evil, damage' (the-evil,

damage))

Abz /-čʷ-ħa-/ 'to use dirty language'

PNWC */-cu-w-q'a-/ → WC /-ś'wə-ɣwa-/ 'to speak against someone' (with glottalization of the pV)

(Perhaps → PIE /ɣw-ékʷ-/ → Vedic *vivakti*, Lat *vox*, Umb. *vepurus*, Greek *epos*, and by back formation */ɣéw-kʷ-/ → Av *aok-*, where /ɣ/ = *ǰ₁.)

(71) 'to graze (as of cattle)'

PNWC */-w-ħəxə-/ → */-ħʷxwə-/ → PC */-hʷxwə-/ → C

/-(ɣa-)xwə-/ 'to (cause to) graze'

PAA */-xwə-/ → AA /-ħʷ-/ 'to graze'

PNWC */-ħəxə-/ → PU */-ħxə-/ → U /-x-/ id.

(72) 'to tend flocks'

PNWC */-ɣà-w-xa-/ (in hand)-aspect-herd → PC */-ɣaaxwa-/ → WC /ɣaaxwa/, K EC /ɣaxwa/ 'herder'

PNWC */-ɣa-w-xà-/ → Early PU */-ɣxwa-/ → */-ɣxwa-/ →

*/-ɣq'wa-/ → */-q'wa-/ → U /-wəq'wa-/ /-wq'wa-/ 'to tend flocks'

(73) 'herd'

PNWC */-x(a)-/ → */-x(a)-ǰə-ɣa-/ → PAA */x(a)ǰ'a/ →

*/x(a)č'a/ → Abx /a-xʲčʲa/, Abz /ǰə-ɣə-čʲa/ 'herder'

Form (73) shows the nominal use of the root upon which the verb in (72) (and perhaps that in (71)) is built.

(74) 'to die, mortal'

PNWC */-ǰə-ɣà-/ → PC */-ǰa-/ → C /-ǰ'a-/ 'to die'

PNWC */-ǰə-ɣə-/ → PC */-ǰə-/ → C /ǰə/ 'man' (*'mortal')

PNWC */-ǰə-ɣà-/ → PU */-ǰq'a-/ → */-ǰq'a-/ → U /-q'a-/ 'to die'

PNWC */-w-ǰə-ɣə-/ → PAA */-ǰ'wə-/ → */-č'wə-/ → Abz /-č'w/ 'man'

V. A. Čirikba (personal communication) has helped me with some of the difficult Abaza material that I originally subsumed

under (74); specifically he has shown me that Abaza /ɤwč'wɤwəs/ 'man, mortal' is paralleled by [Bzyb] Abx /a-wa-ywə-t'wə-ywə-ša/ 'the-man-man-attributive suffix-man-diminutive suffix,' and has no relation to a putative PAA */-č'wq'wə/ ← PNWC */-w-ʃə-ɤə-/.

(75) 'to cover'

PNWC */-p'ɤa-w-q'ə-/ place-asp-cover → Early PC */-p'ɤaq'wə-/ →

Bzh WC /-p'ɤwa-/ 'to cover'

PNWC */-p'ɤa-y-q'ə-/ place-direction-cover → PU */-p'q'aq'ɤə-/ → U /-p'q'ɤ-/ id.

PNWC */-ɥa-w-q'ə-/ ?-asp-cover → Early PAA */-x̄aq'wə-/ → */-x̄q'wa-/ → Bz Abx /-x̄q'ɤa-/ , Abx /-xɤwa-/ , Abz /-q̄q'ɤa-/ 'to cover, cover' (with */q'w/ → /q'ɤ/ by dissimilation)

(76) 'to tie'

PNWC */-phə-ğə-/ tip, point-tie = 'to tie' → C /-pχə-/ id.

PNWC */-phə-y-ğə-a-/ tip, point-dir(ection)-tie-in → PU */-phə-ğɤa-/ → */-phə-za-/ → U /-bza-/ id.

(77) 'to call to someone'

PNWC */-phə-y-χə-/ tip, point-dir-call = 'to call to some one' → PAA */-phə-xɤa-/ → Abx /-pxɤa-/ id.

PNWC */-mə-y-χə-/ ?-dir-call = id. → PU */-məχɤə-/ → U /-məšə-/ id.

(78) 'to enter'

PNWC */-ɥa-/ → C /-ɥa-/ 'to enter'

PNWC */-w-ɥə-/ → PU */-w-hə-/ → U /-w-/ id.

(79) 'to go, come'

PNWC */-y-ča-/ dir-go → PU */-čɤa-/ → U /-čɤa-(wə-)/ 'to allow to go' (frozen causative), /-čɤa-(x̄)/ 'to roll,' /-čɤa-(x̄w-)/ 'to turn around'

PNWC */-ča-/ → Bz Abx /-ča-/ , Abx, Abz /-ca-/ 'to go'

(Note: PIE */kʷy-əw-/ 'to go' (Greek /séu-ō/, Skr /čyav-/ , Av /š(y)av-/ , Ossetic /cæw-/ , /-cu/ , /cæwæg/ , /caw/ , /cæwag/ ,

/caw/ (Benveniste 1959:22-29, §9) → PC /-k'w-/ → C
 /-k'w-(a-)/ 'to come, go (intr),' U /-k'ya-/ 'to come, go')

(80) 'to hunt'

PNWC */-ša-/ → PC */-ša-/ → Bzh WC /-y-a-ša-/ dir-to-hunt =
 'to hunt,' /ša/ 'hunt(er),' EC /-y-a-ša-/ 'to hunt'

PNWC */-w-šə-/ → U /-χʷə-(č'ya-)/ hunt-(go-) = 'to hunt'

PNWC */-w-ša-/ → U /χʷaak'ya/ 'hunter'

PAA */-šwa-/ → Bz Abx /(a-)šwa-(rə-ca-ra)/

(the-)hunt-(way-go-inf) = 'to hunt,' /a-šwa-(ra-č-yw)/

the-hunt-(way-go-man) = 'hunter,' Abx /(a-)šwə-(rə-ca-ra)/ 'to
 hunt,' Abz /šwa-(ra-c-ra)/ id., /šwa-(ra-c-ɣw)/ 'hunter'

I disagree with Dumézil's (1971:112) analysis of the Ubykh forms in (80) and side rather with Vogt (1963:178, §1639).

The present section presents extremely complex etymologies involving cluster effects (10, f). These are poorly understood, but appear to be real nonetheless. Some are fairly straightforward. Others involve all the assumptions in (10) and are motivated largely by semantic transparency. Some of the more complex features are the use of PNWC */ɣ/, a voiced pharyngeal, a segment not preserved as such in any of the daughters (C /ɾ, ɾʷ/, U /ȳ, ȳʷ/, PAA */x̄, x̄ʷ/, but one seemingly required to account for deviant cases of voicing or odd details of pharyngealization. Another remarkable feature which can make an etymology look confusing is the ability of Ubykh to swallow laterals or glottal stop and convert these into pharyngealization on a surviving uvular.

I begin with some examples showing the lagging assimilation of present-day Ubykh (81). While one might assume Ubykh assimilation always to have been this way, details of fairly simple etymologies, (82) for example, strongly suggest that this is a late feature imposed upon Ubykh by Circassian influence. Thus, Ubykh clusters tend to show anticipatory assimilation (left to right assimilation), Circassian ones lagging assimilation (right to left), and Abkhaz-Abaza clusters loss of first element or occasionally no assimilation at all.

(81) Lag effects in Ubykh (old Circassian pattern imposed upon Ubykh material):

- (a) /ʎaq'à/ 'trace' ~ /a-ʎxà-a-k'ya/ its-trace-conn-go = 'after'
 (b) /zq'à/ ~ /zɣà/ 'right'
 (c) /a-sʷemc'a-śʷ-q'a/ the-girl-little-past = 'she was a little girl'
 → /a-sʷemc'a-śʷ-xa/ (Dumézil 1959:55)

(82) 'water, river'

- PNWC */zə/ → PAA */zə/ → Abx /a-zə/ , Abz /zə/ 'water'
 PNWC */-zə-y-a-w-ya-/ water-dir-to-asp-cross = 'to cross a river'
 → U /-zʷa-ɣʷa-/ 'to cross a river or body of water'
 PNWC */pə-zə/ → PC */pə/ → */psə/ → C /psə/ 'water, river'
 PU */bɜə/ → U /bɜə/ id.
 PNWC */pə-za/ → PC */pca/ → C /pca/ 'fish' (*'water one')

(83) 'bone, frame'

- PNWC */pəɜə/ → PC */pəɜə/ → */pəq'ə/ → */pq'ə/ → C /pq(ə)/
 'bone, frame'
 PNWC */pəɜə/ → PU */pəɜ̃à/ → U /bɣ̃-à/, /ɸ̃ɣ̃-à/ 'thin (said of
 animals, i.e., 'bony')'
 PNWC */w-pəɜə/ → PAA */bʷɜa/ → */bɜwa/ → (? */bɣ̃wa/ →
 */bɣ̃wa/ → */bɜwa/ →) Bz Abx /à-bywa/, /à-bayw/, Abx /a-baɜw/
 'bone' (PNWC *ɜ, *ɜʷ preserved after C's in PAA?)
 PNWC */w-pəɜə/ → PAA */bʷɜə/ → */bɜwə/ → Bz Abx /à-bəyɜw/,
 Abz /bɜwə/, /bəɜw/ id.

(84) 'to run'

- PNWC */-ɾəqà-/ → PU */-ɾq̃à-/ → U /-q̃à-/ 'to run'
 PNWC */-w-ɾəqà-/ → PAA */-ɾʷqà-/ → */-ɾʷq'ə-/ → */-q'wə-/
 → Bz Abx /-yʷw-, Abz /-ɜʷw-/ id. (from consonantal inflections:
 PAA *q, *q'w → *ɜ, *ɜʷ /C__)

One may contrast the relative simplicity of (82-84) with the complexity of (85-86), which are nonetheless well-motivated sets.

(85) 'foster child'

- PNWC */-pa-w-ɜə-/ child-asp-rear → PC */-paɾwə-/ → */-p'ɾwə-/

- Bzh WC /-p'ɾwə-/ 'to rear, educate a child'
 PNWC */pa-w-ɾə-/ → child-asp-one reared → PC */paɾwə/ →
 */p'ɾwə/ → Bzh WC /p'ɾwə/ 'foster child'
 PNWC */-pa-y-ɾə-/ → Northern PU */-pa-ɾyə-/ → */-p'ɾyə-/ → U
 /-p'q'y-/ 'to rear a child' (Circassian influence)
 PNWC */pa-ɾə-/ → Southern PU */paɾə-/ → */pɾə-/ → */(qwa-)pɾə-/
 → U /qwa pɾə/ 'fosterchild' ← U dial. /pxya-dək'w-xwəpxa/
 girl-little-foster = 'elevated, noble girl' (Bzyb Abkhaz
 influence)
 PNWC */pa-ɾə/ → PAA */paɾ-ə/ → */paɾə/ → */a-qwə-pɾə/ →
 */a-ɬwə-pɾə/ → Bz Abx /a-ɬwəpɾə/ 'foster child'

(86) 'to curve, bend'

- PNWC */-w-ɬə-/ → PAA */-xwə-/ → Bz Abx /-xwə-xwə-/
 curve-curve = 'to curve,' /(-r)-xwə-/ (smooth) curve = 'to
 curve smoothly'
 PNWC */-w-ɬə-/ → PAA */xwə/ → Bz Abx /ə-xw/, Abz /q'wə/
 'hair' (*'curl')
 U /-xwə-xwə-(da-)/ curve-curve-(prolonged action) = 'to slither
 along,' /-xwə-xwə-(r-da-)/ curve-curve-(smooth-prolonged
 action) = 'to slide along with a fluid motion'
 PNWC */-ɬə-q'a-/ curve-past → PU */-ɬq'a-/ → U /-q'-/ 'to
 bend,' /q'amaaq'/ ← */q'a-ma-a-q'/ arm-body part-conn-bend
 = 'elbow'
 PNWC */-w-ɬə-q'a-/ → PU */-ɬwq'a-/ → */-ɬwq'wa-/ → U /-q'w-/
 'to bend, curve,' /q'wə/ 'hair' (*'curled'), /-q'wə-q'w-/
 bend-bend = 'to squat, sit on one's heels'
 PNWC */-w-ɬə-q'a-/ → PC */-hwq'a-/ → */-hwxwə-/ → */-xwə-/
 → C /-xwə-/ 'to file, rub,' /psə-xwə/ water-flow = 'river'

(87) 'to drink'

- PNWC */-w-ɬəzə-a-/ → PC */-hwca-/ → */-hwɕwə-/ → */-cwə-/ →
 */-śwə-/ → Bzh WC /-y-a-śwə-/ , K EC /-y-a-fa-/ it-of-drink =
 'to drink of something'
 PU */-ɾwzə-/ → */-ɾwzəwə-/ → U /-zəwə-/ id.
 PNWC */-w-ɬəzə-/ → PAA */-ɾwzə-/ → */-ɾwzəwə-/ → */-ɾwzəwə-/

→ /zʷə-/ → */-zʷə-/ → Bz Abx /-zʷ-/ , Abx /-zʷ-/ , Abz /-zʷ-/
id.

(88) 'brother'

PNWC */hʒə/ → PC */hčə/ → */hčə/ → */čə/ → Bzh WC /šə/,
Besl EC /čə/ 'brother'

PNWC */y-hʒə/ → PU */hyʒə/ → */hyʒə/ → */ʒə/ → U /ʒəʎə/
'brother' (with /ʎə/ as seen in (74) 'to die, mortal'),
/ʒə-pxə/ brother-daughter = 'sister'

PNWC */y-hʒə/ → PAA */yhʒə/ → */hyʒə/ → */hyčə/ → */hyšə/
→ Abx /(a-)yašə/; */hšə/ → Abz /ašə/ 'brother'

(89) 'head'

PNWC */hə-šə/ → PC */hšə/ → */hšə/ → */hšə/ → Bzh WC
/šə-(gʷ)/ head-loc = 'mountain top, top part,' K EC /šə-(gʷ)/
head-loc = 'plateau, surface'

PNWC */hə-šə/ → PC dial. */hšə/ → */šə/ → C /šə/ 'head'

PC */hšə/ → */hšə/ → */hšə/ → Bzh WC /šə(-a-psə-γʷ)/
head-conn-point-ones = 'the ones with pointed heads' (= 'Shapsegh')

PU */hšə/ → */hšə/ → */šə/ → U /šə/ 'head'

PNWC */hə-šə-γə/ head-fat-one = 'brains' (lit., 'head marrow') →

PAA */xšəγʷ/ → Bz Abx /a-xšəγʷ/ 'brains, intellect' (cf., Abz
/qə-bəγʷ-la-šə/ head-bone-loc-fat = 'brains,' lit., 'skull
marrow')

PNWC */hə/ → PAA */xə/ → Bz Abx /a-xə/, Abx /a-xə/ 'head'

PNWC */hə/ → PAA */xə/ → Ashx Abx /a-qə/, Abz /qə/ id.

The correspondences for 'head' are another example of a highly complex set of cognates that is nonetheless well motivated.

(90) 'mountain (forest)'

PNWC */ʎəhə/ → PC */ʎəhə/ → */šəhə/ → Bzh WC /(qʷə)šəhə/
'montane forest'

PU */ʎəhə/ → /ʎəhə/ → U /ʎəhə/ 'mountain'

PAA */šəhə/ → */šəhə/ → Bz Abx /ə-šəhə/

Ashx Abx /a-šyq̄a/ id.

(91) 'to rain'

PNWC */-čh-yə-kə-/ loc-dir-rain → PC */-šhykhyə-/ → */-šyχə-/ →

WC /-šyχə-/ 'to rain'

PNWC */-w-kə-/ → U /-kʷə-/ id.

PNWC */-w-kə-a-/ → Abz /-kʷa-/ id.

(92) 'to eat'

PNWC */-χčə-/ → PC */-čχə-/ → /-šχə-/ → Bzh WC /-škə-/ , WC /-šχə-/ , K əC /-šχə-/ 'to eat (tr)'

PNWC */-w-χčə-/ asp-eat → PU */-χʷčwə-/ → */-šʷčwə-/ (65-67) → U /-f-/ id.

PNWC */-w-χčə-a-/ asp-eat-at → PAA */-xʷčwa-/ → */-šʷčwa-/ (by assimilation?) → AA /-fa-/ id.

PNWC */-y-xčə-a/ dir-eat-at → PAA */-xyčya-/ → AA/-čya/ '*(to) eat, feed'

(93) 'six'

PNWC */χcə/ → PAA */xcə/ → Abz /c-/ 'six'

PC */χcə/ → /χsə/ → C /χə/ id.

PNWC */w-χcə/ → PU */χʷcʷə/ → */čʷxʷə/ → */-šʷcʷə-/ (65-67) → U /fə/ id.

PAA */xʷcʷə/ → */-šʷcʷə-/ (by assimilation?) → Abx /f-/ id.

The next two cognate sets, (94-95), appear to have been borrowed into Proto-Indo-European as names for metals. One, (95), was borrowed back at least into Proto-Ubykh.

(94) 'copper'

PNWC */ha-yəχa/ → */ha-yχa/ → PC */a-χya/ → C */a-šya/ 'copper' (unattested)

PAA */a-yəχa/ → AA /ayxa/ 'iron'

PC */a-šya/ = *[hayše] → PIE */hayse/ → by back formation, the dehnstufe */hayes-/ 'copper' (= *ǵ4eyes-)

(95) 'metal, iron'

PNWC */w-ʎa/ → PC */ʎʷa/ → C /ʎʷa-pʎa/ metal-red (?) =

'copper,' /ʎʷa-a-pʎa/ metal-conn-red = 'red copper'

PNWC */w-ʎə-č'ə/ → PC */ʎʷəč'ə/ → Bzh WC /ʎʷəč'ə/, K EC

/ʎʷəš'/ 'iron'

PNWC */w-ʎə-č'a/ → PU */a-ʎʷč'a/ → U /a-wc'wà/, /wəc'wà/

'(piece of) iron'

PU */a-wc'wà/ = *[hawc'wə] → PIE */hawso-/ 'iron' (=

*ǵ4ewso-),

PIE */hawso-/ → PU */a-ws'wà/ → U /a-ws'wà/, /wəs'wà/ 'iron'

(96) 'to ask, answer'

PNWC */-pʰə-č'ə-/ front-know (?) = 'to ask, answer (?)' → PC

*/-pʰə-č'ə-/ → */-p'č'ə-/ → */-p'č'ə-/ → Bzh WC

/-(wə-)p'č'ə-/ , K EC /-(wə-)p'š'ə-/ 'to ask'

PNWC */-č'ə-ʎa-/ know-derivational suffix → PU */-č'ʎa-/ → U

/-č'ʎa-/ id., (with irregular loss of apicalization, but see Kuipers 1987:91-93)

(97) 'to know'

PNWC */-č'a-ʎa-/ know-deriv. sfx. PC */-č'q'a-/ → Shapsegh

WC /-š'ʎa-/ , other C /-š'a-/ 'to know'

PAA */-č'ʎa-/ → */-č'ʎa-/ → Bz /-č'ʎa-/ , Abzhwi /-c'ʎa-/

('c'aa-'), Abz /-c'ʎa-/ id.

PNWC */-č'a-/ → U /-č'a-/ id.

V. A. Čirikba has lent me critical help with (96) and (97).

The next cognate set is perhaps the most complex in the entire study, but is also one of the best motivated.

(98) 'woman'

PNWC */xa-/ → U /xa-ʎʷà/ 'you (free woman)' (obsolete)

PNWC */pa/ → AA /pa/ 'son or nephew by brother'

PNWC */pə-xə/ → PC */pxə/ → Shap WC /pxə/ 'daughter'

PNWC */pə-w-xə/ → C /px^wə/ id.

PNWC */pə-y-xà/ → U /px^yà/ id.

PNWC */w-səmc'a/ → U /s^wəmc'a/ 'woman, women'

PNWC */w-śəmc'a/ → PC /ś^wənzə/ → */ś^wəz/ → WC /ś^wəz/, EC /fəz/ 'woman'

PNWC */w-xə-śəmc'a/ → PAA */x^wəśənsə/ → Bzyb Abx /ə-ḥ^wśśə/ (old pronunciation), /ə-ḥ^wśə/, Ashx Abx /ḥ^wsəśə/, /ə-h^wssa/ id., (Bgažba 1964:145)

PNWC */pə-w-xə-śəmc'a/ → PAA */px^wəśəns/ → Bz Abx /a-ph^wəś/ 'daughter'

PNWC */pə-śəmc'a/ → PC */pśaanza/ → */pśaaza/ → C /pśaaśə/ 'girl'

or

PNWC */pə-xə-śəmc'a/ → Early PC */pxəśənzə/ → */pxəśśə/ → */pxaaśə/ → C /pśaaśə/ id.

Ubykh has developed pharyngealized segments from clusters with an old lateral. One instance of this development has already been given, (74), but I have gathered together most of them here since the sound correspondences that result are extremely surprising. The possibility that laterals could cause Ubykh pharyngealization (U /l^wə/ 'too much') was first suggested to me by J. C. Catford (personal communication), as was one of the cognate sets, (99).

(99) 'famine'

PNWC */mla/ → PC */b^la/ → C /(γaa-)b^la/ '(cause-)famine'

U /m^la(ś^wà)/ 'misery, famine'

Abx /a-m^la/, Abz /m^la(š^yəy^ra)/ 'famine'

(100) 'wolf'

PIE */w_{el}pō-/ or Early Gothic */wulfaz/ → PNWC */w-l(p)a-/ →

PU */w^la-/ → U /wà/ 'dog'

Abx /a-la/, Abz /la/ id.

(101) 'village'

Turkic /kala/ → PC */qaa^la/ → C /qaa^la/ 'village'

PU */qala/ → */qla-š/ village-place → U /qas/ id.

(102) 'to look'

PNWC */-p^hə-ʎə-/ point-look → PC */-p^hə-/ → C /-p^hə-/ 'to look'

PNWC */-ʎə-a-/ → PC */-ʎa-/ → C /-ʎaaɣ^w-(a-)/ 'to see (-intr)'

PNWC */-p^hə-ʎə-a-/ → PU */-f^hə-/ → */-fa-/ → U /-ya-/ 'to spy upon someone' (Dumézil 1974:25, §5)

(103) 'to give birth'

PNWC */-λə-w-χə-/ flesh-asp-bear → PC */-ʎχwə-/ → WC /-ʎfə-/ 'to bear a child,' / (pxwə-ra-ʎf/, Shaps WC / (pxwə-ra-ʎf/, (daughter-by-)born = 'nephew, niece or grandchild by a sister or daughter,' K EC /-ʎχwə-/ 'to bear a child'

PNWC */-λə-χə-/ → PU */-λğə-/ (with Circassian-like assimilation) → */-λγ-/ → U /-γ-/ id.

PNWC */-λə-χə-a-/ → PAA */-ʎxa-/ → */-ʎx̄a-/ → */-šx̄a-/ → Bz Abx /-x̄ša-/ id.

PNWC */-y-χə-a-/ dir-bear-to → PAA */-xya-/ → Abz /-xya-/ id.

(104) 'feces'

PNWC */-čəχə-/ → U /čəχə/ 'filth, excrement'

PNWC */-la-čəχə-/ → PU */-l-čəχə-/ → */-čx̄ə-/ → U /-čx̄-/ 'to defecate'

PNWC */-wə-čəχə-a-/ → PAA */-čwxa-/ → A-S Abx /-cxwa-/ 'diarrhea'

(105) 'to blaspheme'

PNWC */-wə-cəχà-/ → PC */-wə-cχà-/ → */-wə-sχa-/ →

C / (t̥a-a-)wə-səχa-/ (god-to)-asp-complain = 'to blaspheme, complain to god' (by leveling with the following form)

PNWC */-wə-cəχa-/ → PC */-wə-cəχa-/

PNWC */-la-wə-cəχà-/ loc-asp-complain → PU */-l-cwχa-/ → */-lcw̄x̄a-/ → U /-cw̄x̄a-/ id.

PNWC */-la-wə-cəχa-/ → PU */-l-cʷəχa-/ → U /-cʷəχa-/ id., (by leveling with the preceding form)

PNWC */-la-cəχà-/ → PAA */-l-cxà-/ → Abz /(-ʕa-)l-çə(-ʕa-)/ (hither-)locative-complain-(derivational suffix-) = id.

I wish to close on a note of caution. Lest one think that the techniques presented herein have reduced the reconstruction of PNWC to a set of algebraic rules, (*-/w+C/ → /Cʷ/, */p'+C/ → /p'C'/, */l-w/ → U /(/l)w/, etc.), I present some of the recent reflexes for PNWC alveolo-palatals, posited by Šagirov, Dumézil, Abdokov, and Kuipers (see Kuipers 1987:91-93). These show that the PNWC alveolo-palatal affricates have developed differently from the corresponding spirants when preceded by a labial element (contrast, for example, (34) 'ten' and (98) 'woman,' containing spirants, with (96) 'to ask,' containing an affricate). These examples also offer welcome evidence for the behaviour of the old class prefix(es) PNWC */pə-/ , */p'ə-/. The need to establish "old fashioned" sound correspondences for this language family has not been obviated by the new techniques, only augmented by them.

In the following, one should note that apicalization is not always preserved in Ubykh, (contrast U /sa-q'wə-na/ hundred-son-mother, 'mother-in-law' (lit. 'mother of a hundred sons,' for expected */sa-q'wə-na/, cf., K /śa-q'wə-na/ id.). This is perhaps due to an old dialect division within Ubykh between northern dialects which lacked apicals as a result of Circassian influence, and southern ones which preserved them as a result of Bzyb Abkhaz influence.

I have included Kuipers' citation numbers within parentheses as (K #). Like Kuipers, I have not taken these Circassian reflexes from below the level of Proto-Circassian (in effect, these are close to Bzhedukh West Circassian forms).

(105) (K1) 'insect'

PNWC */ǰə/ → Bz Abx /a-ǰ/ the-flea

PNWC */ǰa-a-ǰ/ → U /ǰàaǰ/ 'bee'

PNWC */pə-ǰà/ → PC */bǰa/ → */bǰəǰa/ 'flea' (Ubykh-like assimilation)

(106) (K2) 'span, measure'

PNWC */ʒa/ → Bz Abx /â-ʒa/ the-span, measure

U (dial.) /ʒa/ id.

PNWC */pə-ʒà/ → PC */bʒa/ → */bʒa/ id. (Ubykh-like assimilation)

(107) (K3) 'winter'

PNWC */ʒə/ → Bz Abx /â-ʒə-n/ the-winter-sfx

PNWC */pə-ʒə/ → PC */bʒə/ → */bʒəḥa/ winter (Ubykh-like assimilation)

PNWC */pə-ʒà/ → PU */bʒya/ → U /â-bʒya/ the-winter

(108) (K4) 'vine'

PNWC */ʒa/ → Bz Abx /a-ʒa-xʷà/ the-vine-bend

PNWC */pə-ʒà/ → PC */bʒa/ → */bʒa(ʎa)/ 'liana' (Ubykh-like assimilation)

PNWC */pə-ʒə/ → PC */bʒə/ → */bʒə/ 'vine' (Ubykh-like assimilation)

(109) (K5) 'sharp(en)'

PNWC */č'a/ → Bz Abx /â-č'a-r/ the-sharp-gerund = 'sharp'

PNWC */p'ə-č'à/ → PC */p'č'a/ → */p'č'a/ '(to) sharpen'

(110) (K6) 'bird'

PNWC */č'ə/ → Bz Abx /a-č'ə(š)/ 'bird'

U /č'ə(ntʷa)/ a species of bird, U (dial.) /c'ər(χà)/ 'swallow,'
/c'ə(šxa)/ id.

PNWC */p'ə-č'à/ → PC */p'č'a(šxʷa)/ → */p'č'a(šxʷa)/ id.

(111) (K7) 'to splash'

PNWC */-č'à/ → Bz Abx /a-ʒə-m-č'à-r/

the-water-obl-splash-gerund = 'spring water falling out of a

sluice'

PNWC */p'ə-č'ə-/ → PC */-p'č'ə-/ → */-wə-p'c'ə-/
valence-splatter = 'to splash, bespatter'

(112) (K8) 'lie, falsehood'

PNWC */məč(à)/ → PAA */məč/ → Bz Abx /ā-mč/ the-lie,
falsehood

U /məčà/ id.

PNWC */p'ə-məč(à)/ → PC */p'əmč(à)/ → */p'č(a)/ → */p'č'(a)/
→ */p'c'(a)/ id.

(113) (K9) 'to ferment'

PNWC */-ča-/ → Bz Abx /ā-ča-r/ the-ferment, leaven-inf = 'to
ferment, leaven'

PNWC */p'ə-čà-/ → PC */-p'č'a-/ → */-p'c'a-/ 'to ferment,
curdle'

(114) (K10) 'flesh'

PNWC */ča/ → Bz Abx /a-xwà-m-č/ the-sinew-obl-flesh = 'torso,'
/a-k'wàč/ 'meat'

PNWC */p'ə-čà/ → PC */p'č'a/ → */λə-p'c'a/ meat-flesh = 'flesh'

(115) (K's tentative 11) 'rennet stomach'

PNWC */ča/ → Bz Abx /ā-čə(r)/, /ā-ča(r)/ the-rennet stomach
(Bgažba 1964:43), A-S Ab /ā-ca/ id.

PNWC */p'ə-čà/ → PC */p'č'a/ → */k'yap'c'a/, Sh WC /nəp'c'a/
id.

The unusual languages of this family have much to offer to the linguist at the levels of phonetics, phonology, morphology and semantics, and syntax. I hope that I have made it apparent that they also have much to offer the historical linguist as well. Proto-Northwest Caucasian can be reconstructed using great care and effort, the morphological assumptions, (10), with a few others (glottalization is variable in preverbs (see (47), (70)), the recognition of extensive compounding, and a willingness to follow

sensible semantic criteria and recognize homonymy when it arises, as it frequently does. In no other proto-language does morphology play such a major role in reconstruction and in no other language family does one need to rely so heavily upon advanced considerations of morphology in order to obtain even the simplest results.

I cannot claim to have given a full account of the proto-language, but I have made a start. With the techniques used herein numerous cognates can be found and rapid progress made. I hope that others will try their hand at this task. They shall be well rewarded for their efforts.

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ON THE RELATIONSHIP BETWEEN THE NOMINAL
ACCENT IN LITHUANIAN AND THAT OF OTHER INDO-
EUROPEAN LANGUAGES

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This paper is a continuation of Darden (1979, 1982), in which I have criticized Illič-Svityč's (1963) claim that there is a clear relationship between the accent in Baltic and Slavic nouns, and those of other Indo-European languages. I have previously covered the vocabulary which is specifically Balto-Slavic (Darden 1979) and Slavic (Darden 1982). In this paper I will compare the accent of Lithuanian short vowel stems to that of the other IE languages.

Modern Lithuanian has free stress. Short syllables are simply short, but there are two possible intonations on stressed long syllables: acute or circumflex. The primary phonological source of acute intonation is stress on original monosyllabic length, primarily length resulting from loss of a laryngeal, but also length from ablaut. Circumflex syllables are from diphthongs, coalescence of two vowels, lengthened short vowels. Circumflex intonation on original long syllables is a problem. One source seems to be late retraction of accent onto a long syllable (Stang 1968: 149ff). When not understood, the unexpected intonation is simply classified as 'metatony.'

Lithuanian nouns are in standard grammars separated into four accentual classes, numbered (1)-(4). At a slightly abstract level, however, there are only two basic types, fixed and mobile. Classes (2) and (4) happen to have a circumflex or short accent on the stem-final syllable, and this accent is shifted onto an ending which begins with an acute vowel by DeSaussure's Law. Once we run this law in reverse, classes (1) and (2) have fixed stem accent, while (3) and (4) have mobile accent, with the accent shifting from the beginning to the end of the word.

Sanskrit, Greek, and Germanic also show evidence of two types of accentual paradigms. One type, referred to as barytones, has fixed stem accent. For stems with a theme vowel, the barytones

are opposed to a class with fixed stress on the theme vowel or ending. These are traditionally called oxytones. In athematic stems the barytones are opposed to a class that shows an accentual alternation between the stem-final syllable and the first syllable of the ending.

Baltic and Slavic generally fixed the accent on primary stems with long vowels in the root. The intonation is acute, and these are commonly referred to as acute stems. Stems with short or circumflex root vowels are often referred to as circumflex stems. For circumflex stems Illič-Svityč proposes a simple rule. Lithuanian stem stress (class 2 and rare cases of class 1 with polysyllabic stems) corresponds to IE stem stress (barytones). Lithuanian mobile accent corresponds to IE oxytones or mobile accentuation.

Kuryłowicz (1968:115-8), on the other hand, claimed that there was no relationship between the Lithuanian accent classes and the IE classes. He said that in general primary stems with historical short syllables are mobile in Lith. Class (2) substantives are in general derived. He did note, however, that Lith. class (2) substantives often correspond to Slavic stems with end stress.

Ilič-Svityč argued that Kuryłowicz failed to make the correct judgment because he failed to take into account dialect information. Literary Lithuanian has a strong tendency to change monosyllabic class (2) substantives to the mobile class (4), but if you look hard enough, you can generally find evidence for stem accent in nouns that are cognate with IE barytones. Quite often the evidence that he finds is very sketchy, depending on rare dialect information, variant manuscript data, or even on secondary derivatives.

One problem with evaluating Illič-Svityč's arguments, then, is evaluating his evidence for the reconstructed Lith. accent. Another problem is in evaluating his etymologies. When we reconstruct accent on words, we are actually reconstructing words—not just roots. We must be reasonably confident that the words in Lith. and the corresponding words in other languages are actual phonological descendents of identical words in IE. This is a particular problem when we are dealing with words in productive derivational categories. Most of Illič-Svityč's evidence

is found in IE *o*-stems and *ā*-stems in categories that were productively derivable for millennia.

In Darden 1982 I claimed that once we apply strict etymological criteria, so that we have reasonable assurance that we are dealing with reconstructed IE words, the evidence for Illič-Svityč's claims about the relationship between Slavic and IE accent simply disappears. In this study I will attempt to apply those same standards to the Lithuanian data.

The most important criterion is formal identity. The stems as reconstructed must be phonologically identical, and they must belong to the same morphological stem-class. Secondly, the word in question should not be formally and semantically easily accounted for by internal derivational rules. If we are dealing with an *o*-stem noun which could have been derived from a verb in the parent language or in either of the daughter languages, then we should demand semantic evidence of the age of the derivative before we consider it an IE word. Ideally, it should show semantic specialization which is reflected in both daughter languages.

A good example of a bad etymology is Illič-Svityč's claim that Lith. *gānas* (4) 'herdsman' should be identified with Skt. *ghanás* 'striker, killer, club.' These forms could go back to **ghonos*, which might have existed as an derivative from a verbal root **gh(e)n-* in the parent language. However, we can and should treat Lith. *gānas* as an internal derivative from the Lith. verb *giñti* 'drive' or its iterative *ganýti* 'herd.' The Skt. noun should likewise be derived from *hanti* (**ghenti*) 'beat, kill.'

A good example of a candidate for an IE word is Lith. *vālas* 'horse-tail hair,' Skt. *vāras* 'horse-tail hair.' The Lith. noun is related to a verb *vėlti* 'full, ruffle hair,' but it is not synchronically derivable from the verb. The semantic agreement between Lith. and Skt. leaves little room for doubt about the age of the word.

I have divided the comparative data into six categories:

I. Pairs to be rejected because they do not match formally. This includes obvious failures in phonological make-up, such as Lith. *tiñklas* 'net,' Skt. *tantram* 'loom,' which have different vowels, and Lith. *kuprà* 'back,' an *a*-stem, which does not match the

masculine *o*-stem formation of OHG *hovar* 'hump, back.' It also includes forms that only accidentally match, due to the late changes. Lith. *naktis* and *dešimtis*, while apparent *i*-stems, reveal their original inflection as consonantal stems in the gen. pl. *naktų*, *dešimtų*. They therefore should not be identified with the *i*-stems in Skt. *nāktis*, ON *tiund*, as Illič-Svityč claims. We should rather identify them with the consonantal stems which we do find in Gk. *nuks* 'night,' Skt. *daśāt*.

II. Pairs to be rejected because they have clearly better internal than external etymologies, such as *ganas*, *ghanas*, discussed above.

III. Doubtful pairs, words with good internal etymologies, but with external etymologies better than those in II. An example is Lith. *saīkas* 'dry measure, vessel for measuring,' which has clear verbal sources in Lith. *siekti* 'reach, get, equal a certain amount,' *seikėti* 'measure,' but might be relatable to ON *sar*, OE *sā* (**sóikos*) 'tub.'

IV. 'Iffy' candidates, pairs which match formally and semantically, but which either have good internal etymologies or have other defects which render them less than convincing. An example of the first type is Lith. *sakà* 'tale,' which is a perfectly normal derivative from *sakýti* 'tell, say,' but which matches ON *saga* 'tale,' OHG *saga* 'speech,' OE *sagu* 'speech,' which are also normal derivatives from the verb 'say' **sagjan*.

An example of the second type is *ālkas* 'sacred grove,' which is clearly cognate with Gmc. **olkos* 'temple' in OE *ealh*, OHG *alah*. Gothic *alhs*, however, shows consonantal stem inflection, so the *o*-stem in Gmc. may be relatively young.

V. Reasonable candidates, such as Lith. *bēbrus* 'beaver,' Skt. *bábrus* 'mongoose, brown.'

VI. Good candidates, like Lith. *vālas*, mentioned above. In order to try to evaluate Illič-Svityč's claims for dialect evidence of class (2) accent, we will divide the Lithuanian forms into the following weighted categories with relative values from zero to six.

Zero: consistent class (4) or (3)

One: only indirect evidence for class (2), such as derived adjectives with root stress, which is often but not always associated with nouns of class (2). In this class we will also put forms which have evidence for class (2) only in Daukša's work

(Skardžius 1935), but for which we can find contradictory evidence from Daukša himself. This applies in particular to *avìs* 'sheep,' which is found in Daukša with two forms which must be read as class (2), while in seven forms it must be read as class (4), and *pàts* 'self, spouse,' which has one form which must be read with with class (2) accent, compared to thirteen forms with class (4) accent.

In this class I also include *ašva* 'mare,' which is not attested in any modern dialect, but which occurs as a place name with both class (2) and (4) accentuation, and *alga* 'payment,' which shows up with stem accent in OPr [gen. sing.] *ālgas*.

Two: Isolated dialect or manuscript evidence for class (2).

Three: Dialect evidence for class (2) which is reasonably well attested in the card files of the Institute of Lithuanian Language and Literature of the Lithuanian Academy of Sciences.

Four: Enough evidence for class (2) that it is mentioned as a dialect variant in the Academy dictionary (LKŽ).

Five: A variant with (2) in the standard language.

Six: Class (2) as the main variant in the standard language.

This classification cannot be anywhere near perfect, but it does give us some weighted values for use in comparing the statistical relationship between the barytonic/oxytonic opposition in IE and the stem stress/mobile stress opposition in Lithuanian. We can compare the average scores on this scale for words with barytonic cognates to those with oxytonic cognates. In the following sets of data, I will list words whose cognates in different languages disagree in both places, but count them as fractions of correspondences.

We will start with the pairs judged as good candidates for being Proto- IE words. Those with barytonic cognates are:

SCORE COGNATE PAIR

4 Lith. *akmuō* (3/dial 1) 'stone': Skt. *ásmā* 'rock, anvil,' Gk. *ákmōn* 'anvil'

1 Old Lith. *ašva* 'mare': Skt. *ásvā* 'mare.' The Lith. word is not attested with any accent, but there are place names of this form with both class (2) and (4) accent.

1 Lith. *avìs* (4) 'sheep': Skt. *ávis* 'sheep.' The only indications of barytonic accent for Lith. *avis* are two forms of gen. pl. *āvių*

in Daukša, compared to seven instances in Daukša of forms that indicate mobile accent. The word is well attested in earlier documents and shows only mobile accent.

- 3 Lith. *jāvas* (4, rare dial 2) 'grain': Skt. *yāvas* 'grain.' Skt. apparently reflects **jevōs*, since **o* before a sonorant in an open syllable should have lengthened by Brugmann's law. The Lith. could have come from **jevās* by a change of **e* to **o* before /v/.

- 1 Lith. *kirmis* (4) 'worm': Skt. *kṛmis* 'worm.' Illič-Svityč cites one dictionary with stem accent in the genitive, which is transitional from class (2). The Academy dictionary shows this pattern only as *kiṛmis*, *kiṛmio*, with a change to *o*-stem declension.

- 1(1/2)Lith. *laukas* (4) 'field': Skt. (u-) *lokās* 'open space,' Gmc. **loukas*: OE *lēah* 'lea,' OSax *lō*, OHG *lōh*. The only indication of stem accent in *laukas* is the variant adverb form from the allative case: *laukan/laukañ* 'outside.'

- 0 Lith. *linai* (4) 'flax': Gk. *línōn*.

- 0 Lith. *lipai* (4) 'glue': Gk. *lípos* 'fat.'

- 0 Lith. *medūs* (4) 'honey': Skt. *mádhu* 'honey.'

- 6 Lith. *pařsas* (2) 'piglet,' Gmc. **pórkos*, OHG *farah*, *farh* 'pig.'

- 1 Lith. *pàts* (4) 'self': Skt. *pátis* m. 'lord,' Gk. *pósis* m. 'husband.' Illič-Svityč cites one form out of fourteen instances in Daukša where this word would be read with class (2) accent. The root exists in the compound *viešpatis* 'lord,' and there is variation in the accentuation of this word, including some cases in Daukša with class (2) accent. *Viespatis* also shows traces of consonantal inflection. If it goes back to a consonantal stem, it cannot be compared to the Gk. and Skt.

- 0 Lith. *plaūsas* (4) 'fleece on plants': Gmc. **pléuson*, OE *fleos* 'fleece'

- 3 Lith. *sāpnas* (4, very rare 2) 'sleep': Skt. *svāpnas* 'sleep.'

- 2 Lith. *sesuo* (3) 'sister': Skt *svásā* 'sister.' One written source cited by Illič-Svityč indicates stem stress for *sesuo* in a document from 1737 (Rozwadowski 1896). There are also very rare traces of stem stress in the gen. sing. in dialects.

- 0 Lith. *sriaumuō* (3) 'strong current': Gk. *hreūma* n. 'river, current'

- 0 (1/2) Lith. *šuõ* (4) 'dog': Skt. *śvā*, [gen] *śúnas* 'dog.' Gk. *kúon*, [gen] *kunés* 'dog.'
- 0 Lith. *šėšuras* (3) 'father-in-law': Skt. *śvāsuras* 'father-in-law.'
- 0 Lith. *šlaunīs* (4) 'thigh': Skt. *śrónis* 'thigh.'
- 3 Lith. *vālas* (4, dial 2) 'horse-tail hair': Skt. *vāras* 'horse-tail hair.'
- 3 Lith. *vāšas* 'hook': Gk. *ónkos* 'hook.' Skt. *ankás* 'hook' apparently has the wrong velar.
- 0 Lith. *vīlkas* (4) 'wolf': Skt. *vīkas* 'wolf.'
- For this set, counting *laukas* and *suo* as one-half correspondence each, we have twenty examples with an average score of 1.43.
- Words with oxytonic cognates:
- 1 Lith. *algà* (4) 'payment': Gk. *alphé* 'ransom.' The only indication of stem accent in Baltic is OPr *ālgas* [gen] 'payment.'
- 1 Lith. *dalīs* (4, 2 in Klein's grammar of 1653 and isolated eighteenth century documents) 'part': Skt. *dalīs* 'part.'
- 0 Lith. *diēvas* (4) 'god': Skt. *devás* 'god.'
- 0 Lith. *duktė* (3) 'daughter': Skt. *duhitā* 'daughter.'
- 3 Lith. *gijà* (4, widespread dial 2) 'thread,' Latv. *dzija* 'thread, rope': Skt *jyā*, Ved *jyā* 'bow string,' Av. *Jyā*, OPer *jiyā* 'vein, sinew,' further Gk. *biós* 'bow,' Lith. *gýsla*, Sl. *žíla* 'vein, sinew,' R. *žíca* 'dyed woolen yarn,' SC *žica*, Bulg. *žíca* 'thread, wire.'
- 0 Lith. *kainà* (4/1) 'price,' Latv. *ciena*, Slavic (R) *čena* 'price': Gk. *poiné* 'fine, penance,' *tínō* 'pay fine, atone.' Slavic still has the verb *kajati* 'atone.' The Balto-Slavic word is old, and the Greek predates the loss of labiovelars, so this is a good candidate for a very old word.
- 1 Lith. *maĩšas* (4) 'sack': Skt. *meśás* 'sheep, pelt.' the link from 'sheepskin' to 'sack' can be seen in R. *mex* 'fur, bellows, wineskin,' *mesók* 'sack,' OPr. *moasis* 'bellows.' A minor indication of stem accent is found in the dialectal adj. *maĩšinis* (Skardžius 1941: 249).
- 0 Lith. *rasà* (4) 'dew': Skt. *rasā* 'moisture, humidity.' This pair might be rejected because we expect *o to lengthen in open syllables in Skt.
- 5 Lith. *šim̃tas* (4, less commonly 2) 'hundred': Skt. *śatám*.

With one half correspondence for *laukas* and *šuõ*, there are ten words in this class with an average score of 1.15.

There is one word that we have not mentioned:

6 Lith. *dùrys*, (dial) *dùres* (2) 'door,' Skt. *dvār* 'door.'

If the Skt. word were interpreted as mobile, then the addition of this word to the mobile/oxytonic cognates would make their score higher than that of the barytonic cognates—the opposite of Illič-Svityč's prediction. There are, however, doubts about the accent. We find attested forms in Vedic only for nominatives and accusatives, which in nouns of this class have stem accent, even if they have mobile accentuation (MacDonell 1975: 241-2). The attested forms are: nom. sing *dvār*, acc. sing *dvāram*, nom./acc. dual *dvārā*, *dvāraū*, nom. pl. *dvāras*/ (once) *dúras*, acc. pl. *dúras*/ (once) *dvāras*/ (once) *durás*.

There are two reasons why one might think that Skt. *dvār* had mobile accent: (1) According to MacDonell's data, all the root nouns with final /r/ had mobile accent. (2) The single instance of stress on the ending in *durás* (vs. 23 *dúras*, according to Grassmann (1964)). There is variation in Vedic between treating the acc. pl. as having stem stress or ending stress in mobile paradigms. Monosyllabic stems generally have stem stress and, according to Kurylowicz (1968:26), stem stress was original. The form *durás* then must be an innovation. The question that we must ask is: where did this innovation come from? Is it a simple error, or is it a reasonable analogy based on the presence of end-stressed forms in the full paradigm? If the latter is the case, then we can use the innovation as evidence for mobility in the unattested forms of the paradigm.

There is an additional problem with the consonantism of Skt. *dvār*, since other IE languages show the reflex of a voiced aspirate (Eng. *door*, Latin *furis*). Walde-Pokorny suggests that the loss of aspiration may be due to dissimilation from the cases with *-bh-*, but at least no one expresses doubt about the connection.

I have elected to omit this cognate from the list. However, the very fact that a decision on a single word could switch the relative positions of the cognates of barytones and oxytones should indicate that the difference between them cannot be significant.

We can now turn to the 'reasonable' candidates: Cognates of barytones are:

5 Lith. *dujà* (4) 'fine granular soil, dust, drizzle,' pl. *dùjos* (2/4) 'gas': Gr. *thúa*, *thúē* 'incense.' The Greek word has an obvious derivational source in *thūō*, *thuío* 'make smoke, burn a sacrifice.' Lith. has two verbs that could be connected to *dujà*: both of the form *dùiti*. The first means 'become covered with *dujos*, mist, become giddy.' The other meaning is 'rush along.' It seems likely that *dujos* in the meaning 'gas' is older than either verb.

2 Lith. *jaũkas* (4, rare dial 2) 'lure': Skt *ókas* 'satisfaction.'

0 Lith. *krušà* (4) 'hail' could be from Lith. *krùšti* 'crumble.' Illič-Svityč cites Gmc. **hrúson* f. OHG *rosa* 'ice.'

6 (3/4) Lith. *pėkus* (2) 'cattle': Gmc. **pėhu*, Goth. *faihu*; Skt. *pásu*/*paśú* 'cattle.'

1 Lith. *sulà* (4) 'sap, particularly birch and maple sap, used to make drinks,' Latv. *sula* 'sap,' OPr. *sulo* 'curdled milk.' The same root shows up in the general word for 'juice,' Lith. *sultys*. Illič-Svityč identifies *sula* with Skt. *sūrā* 'alcoholic drink,' Av. *hurā* 'kumys.' The Baltic words have no internal etymology, but the Skt. does, being relatable to the verb *sunoti* 'distill, prepare wine, press out (a liquid such as soma).' The leap from a fermented drink to birch sap may be rather large, but the 'milk' link between Avestan fermented mare's milk and Old Prussian curdled milk is interesting.

When we combine these stems with the 'good' candidates, we get an average score of 1.66.

Cognates of oxytones or mobile forms are:

5 Lith. *bebrus* (4/2) 'beaver': Skt. *babrús* 'brown, mongoose'

1 Lith. *lentà* (4) 'board': Gmc **lentá*, OHG *linta* 'linden, shield,' OSax *linda* 'linden,' NHG dial *lind* 'bast.' The root exists in Slavic as **lont-*, R. *lut* 'bast, linden bark.' The accent of *lenta* is uniformly class (4), but there are minor indications of lack of mobility in the root accent of the derivatives: [adj] *leñtiniai*, *leñtine*.

5 Lith. *mentė* (4/2) 'shovel, mixer' can be from *mesti*, *menčia* 'mix.' Illič-Svityč compares it to Skt. *mánthā*, ins. *mathā* (**menteH-*) 'mixer.'

- 0 Lith. *spařnas* (4) 'wing': Skt. *parñám* 'wing.' The main question about this pair is whether forms with and without the mobile *s can be considered the identical word.
- 2 Lith. *tautà* (4, one dial. 2) 'people,' Gmc. **teutá*, Goth., *thiuda* 'people.' The difference in the vowel can be accounted for by the Baltic tendency to replace *e by *o before /u/ or */w/.
- 4 Lith. *ugnis* (4/widespread 2) 'fire': Skt. *agnís* 'fire.' There is a problem with the vowel in Lith., but cf. Hamp (1970).

Including one fourth of a correspondence for *pekus*, and combining these forms with the 'good' candidates, we find that cognates of oxytones have a combined average score of 1.85. This score is slightly higher than the score of the cognates of barytones (1.65). This is the opposite of what should be predicted from Illič-Svityč's claims, but the difference is slight enough that the best thing to say is that no correlation is justified.

We will now turn to the 'iffy' candidates.

Cognates of barytones are:

- 6 Lith. *al̃kas* (2) 'sacred grove': Gmc. **ólkos*, OE *ealh*, OHG *alah* 'temple.' There is doubt about the initial vowel in Baltic, since Latv. has *elks*, but that is not unusual. The real problem is that Goth. *alhs* 'temple' shows a consonantal declension, so the *o*-stem in Gmc. may be young.
- 0 Lith. *guřnas* (4) 'ankle, heel': Latv. *gurns* 'hip, supporting fork of a spinning wheel,' Gk. *gárnon* 'piece of iron in the hub which rubs on the axle.' The semantics here are hardly overwhelming, but there is no competing etymology. It is not outlandish to assume that this form originally meant a socket in which something turns.
- 6 Lith. *mēdžias* (2) 'forest,' *mēdis* (2) 'tree,' OPr. *median* 'tree': Skt. adj. *mádhyā-* 'in the middle, between,' nouns m. *mádhyas*, n. *mádhyam* 'middle,' Gk. *méson*, *mésson* 'middle.' Rus *mežá* 'boundary' (dial. 'small woods'), *meždu* 'between.' The reasonable assumption is that forests or trees originally formed natural divisions between land owned by different people. The nominalized adjective from the word for 'between' came to mean 'boundary' in Slavic and 'forest' or 'tree' in Baltic. We still, however, can doubt whether the new form for forest was

simply a change in use of the old form, or a noun newly derived from it.

- 2 Lith. *miglà* (4, rare dial 2) 'fog,' Slavic **migla*, R. *mgla* 'mist, haze,' Gk. *omíkhlē* 'fog.' These forms can be derived from the verbs attested in R. *mžit* 'drizzle,' Gk. *omikh-* 'urinate.' We could assume that this is an old shared formation if (1) we treat the root as having an initial laryngeal to yield the Gk. /o/, and (2) we assume that the velar reflexes (Gk. with a front velar, Balto-Slavic with a back) can be ignored or explained. This is doubtful, since Baltic has a cognate of *omikh-* with a regular reflex of the palatovelar: Lith. *myžti*, Lat. *mizt* 'urinate'.
- 4 Lith. *pilis* (4/ rare 2) 'castle,' Latv. *pils* 'castle,' Gk. *pólis/ptólis* 'city, citadel,' Skt. *pur* 'castle, city.' This is the original term for the hill forts which were characteristic of IE culture, and there is no doubt about the age of the word or that the words are cognate. The doubt is about the form of the word. The Skt. indicates that it was a root noun, and that was probably the original form (cf. Hamp 1985). The change from root noun to *i*-stem may be independent in Gr. and Baltic.
- 4 Lith. *sapnys* (4)/rarer *sāpnis* (2), 'sleep, dream': Skt. *svāpnyam* 'dream, vision.' These may represent an old IE word (cf. Lat. *somnium* 'sleep,') or they may be internal derivatives from the Lith. *sāpnas* 'sleep,' Skt. *svāpnas* 'sleep.' Lith. has a dialectal *i*-stem *sāpnis* [gen] *sāpnies*, which complicates the problem. Since *i*-stems commonly change to **jo*-stems, and not vice-versa, some or all of the **jo*-stems may be secondary.
- 0 Lith. *taūras* (4) 'bison': Gk. *taūros* 'bull.' Illič-Svityč rejects this word because of the /a/ in the Gk. indicates a borrowing.

When we combine these words with the previous groups, we get a combined average score of 1.80.

Cognates of oxytones/mobiles are:

- 5 Lith. *auļas* (4/rarer 2) 'boot top,' OPr. *aulis* 'shinbone' is identified by Illič-Svityč with Gk. *aulós* 'tube, flute.' This etymology is accepted by Frankel (1955). Skardžius (1941:162), however, relates *auļas* to Lith. *aūti* 'put on shoes.' The argument that *aulas* specifically meant 'something long and hollow' is based on the claim that it is related to Lith. *aulys/avilys* 'bee hive,' Rus. *ulej* 'beehive,' Bulg. *ulej* 'beehive, hollow

tree.' The argument that *avilỹs* is connected to Gk. *aulós* is obviously better than that for *auļas*.

- 6 Lith. *beñdras* (2) 'friend': Gk. *pentherós* 'father-in-law, son-in-law.' This pair really belongs somewhere between categories III and IV. It would not be unusual for Lith. to lose the vowel before the /r/. This pair is from the verbal root **bhendh* found in Eng. *bind*. One can easily see this as a word for someone one has close ties with (cf. Skt. *bandhus* 'kinsman (esp. on the mother's side), friend.' The verb is not attested in Balto-Slavic or Greek so the formations must be old. The Lith. adj. *beñdras* (4) 'common, general' shares the same shape as the noun. The noun is quite possibly a derivative from the adjective, or at least gets its class (2) accent through its opposition to the adjective. Illič-Svityč raises questions about the Gk. accent, pointing out that *pentherós* should change to *penthéros* by Wheeler's law. There are a great many exceptions to Wheeler's law in Greek, and the law itself has been disputed (cf. Collinge 1985:221-4). It would seem unwarranted to reject a reconstruction because it entails the failure of Wheeler's law to operate.
- 0 Lith. *kraũjas* (4) 'blood,' OPr *krawian* 'blood': Skt. *kravjám* 'carrion, raw meat.' The root **krũ* shows up in Slavic (OCS) *kry* 'blood,' Avestan *xrũ-* 'piece of bloody meat,' Skt. *krũras* 'bloody.' The Lith. adj. *kruvinas* 'bloody' shows a trace of the same stem, and should indicate that *kraujas* is a secondary formation. The same is true of the Skt., where one may assume *kravis* 'raw meat' > adj. *kravja-* 'bloody' > noun *kravjam*. Walde-Pokorny does not cite a substantival use of the stem *kravja-* with attested accent. Gk. has a barytonic neuter stem *kréas* 'meat.'
- 0 Lith. *mintis* (4) 'thought' is an absolutely clear derivative in *-tis* from *miñti* 'think,' but it might be old enough to be matched with Skt. *matís* 'thought.'
- 0 Lith. *sakà* (4) 'tale' obviously matches ON *saga* 'tale,' OHG *saga* 'speech,' OE *sagu* 'statement' semantically. The only formal problem is that the Gmc. forms are from a fem. *on*-stem (**sagón*). Such stems are often reworked *ā*-stems. However, in either language the word could be independently formed from

the verb to 'say,' Lith. *sakýti*, Gmc. *sag-*. Lith. *sakà*, in fact, has no other corresponding forms in Baltic, as opposed to the more common *pasaka* 'story,' Latv. *pasaka*, and may be a late formation.

- 0 Lith. *sravà* (4) 'flow, bleeding, menstruation' can easily be derived from *sravėti* 'flow' (old pres. *sravu* indicates the likelihood that this is a primary verb and not denominal). Illič-Svityč cites Gk. *hroē* 'flow,' which itself can be derived from *hreō* 'flow.'
- 2 Lith. *tvañkas* (4, 2 in Kurschat) 'stuffy air' clearly belongs with the more common *tvankà* 'stuffy air' and the adj. *tvankùs* 'stuffy.' There is little doubt that historically this group is related to the verbs *tveñkti* 'dam up,' *tveñktis* 'pile up, accumulate' and *tviñkti* 'swell.' They are sufficiently differentiated, however, that we could entertain the notion that *tvañkas* might be identified with Gmc. **tvonkós*, OHG *thwong* 'pressure.' Illič-Svityč suggests that the Lith. word and the Gmc. word be separated because one represents a *nomen acti*, the other a *nomen actionis*.
- 0 Lith. *víeka* (1, one dialect with 4) 'strength, energy,' and *viėkas* 'strength' are derived from the verbal root found in *veĩkti* 'do, accomplish' and *vỹkti* 'go, be a success.' ON *veig* 'force, strong beverage' a fem *a*-stem, matches *víeka* segmentally, although the acute intonation in the Lith. form needs explanation. Because of the predominance of the acute intonation, we will not consider this form to be relevant for the opposition between classes (2) and (4).

When we combine these words with the previous groups, we get a combined average score of 1.85 which is slightly higher than the 1.80 which is the average score of the cognates with barytones. At this point there are two possible conclusions. Either there is no correlation between the barytone/oxytone opposition and the Lithuanian accent classes, or the weighting system which I have used distorts the results.

We will now look at the improbable candidates.

Putative cognates of barytones are:

- 6 Lith. *kaũkas* (2/4) 'household spirit, spirit of dead child,' OPr. *caux* 'devil.' Skt. *kókas* is used to mean various animals,

including the cuckoo. We do not have adequate evidence to link it to the Baltic word. Illič-Svityč cites *koka-yatus* which Monier-Williams glosses as 'ghost in the shape of a cuckoo,' but here the reference to ghost is the contribution of the second term, *yatus* 'ghost,' while the *koka-* simply means 'cuckoo.' The two roots probably are connected, if not in the way that Illič-Svityč suggests. Skt. has a verbal source *kócati* 'utter a shrill cry (as a bird),' and Lithuanian has *sukùkti* 'howl,' *kaukti* 'howl.'

- 3 Lith. *kvāpas* (4, very rare 2) 'smell, breath' is a deverbal noun from the verbal root found in *kvēpti*, pres *kvēpia* 'breathe in,' *kvēpti* 'smell [intrans],' *kvīpti* 'exhale, begin to smell.' Illič-Svityč relates it to Gk. *kápos* 'breathing,' from Hesychius. Vasmer cites it as *kapus*.
- 6 Lith. *liaukà* (2/4) 'gland, tonsil,' pl. *liaũkos* 'glandular disease in hogs': Gk. *léukē* 'skin disease with white scabs.' Both of these nouns can be traced to the root for 'white' **leuk-*, but in Greek the name indicates the white scabs, while in Lith. the primary meaning seems to be 'gland.' We can hardly agree with Illič-Svityč's reconstruction of a common IE word meaning 'tumor.'
- 6 Lith. *mùsé*, **musià* (2/4) 'fly': Gk. *mũia*, *múiē* 'fly.' This looks like a good match, but in Lith. the older word for 'fly' is almost certainly *musìs*, an *i*-stem which is a reformed consonantal stem (cf. gen pl. *musĩ*). The common line of development is consonantal stem > *i*-stem > *é*-stem. (cf. Meillet 1964: 255-6)
- 6 Lith. *rankà* (2), Latv. *ruoka*, OPr. *rancko*, Slavic *rȍka*, all meaning 'hand,' clearly constitute adequate evidence for a Balto-Slavic lexical item, but Illič-Svityč actually derives the Baltic and Slavic words from different sources. He relates the Baltic words to a barytonic Germanic form **wránha* 'corner' (ON *rō*, *rā*, OSwedish *vrā*, Dan. *vrå*), and the Slavic form to an oxytonic **wrangó* (ON *rong* 'frame'). There is an internal verbal source in Lith. *rinkti* 'gather.' Illič-Svityč suggests that the verb is a back-formation in Lith. If so, it must be ancient; the verb has an old ablaut pattern (pres. *renka*), and is attested in OPr *senrinka* 'gathers.' There is certainly no discernable pattern of denominal verbs of this type.

6 Lith. *rātas* (2) 'wheel' pl. *rātai* 'vehicle' obviously belongs to the family of words that includes Latv. *rats* 'wheel,' Skt. *rāthas*, Av. *ratha*- 'vehicle,' Lat. *rotā* 'wheel,' OHG *rad* 'wheel.' The question is whether Lith. *rātas* is a direct continuation of the word which Skt. *rāthas* reflects. Eric Hamp (personal communication) has suggested the /h/ in *rathas* indicates that it is a secondary derivative, probably from **roteH*, which is the precursor of the Latin *rotā*. Thus *rotā* seems to be the best candidate for an original IE word for wheel. Finnic borrowings from Baltic (F. *ratas*, Est. *ratas*, Kar. *rataš*) indicate original masculine gender in Baltic, so the neuter Gmc. **rātha* is not an exact match.

If *rātas* is a Baltic word, one should look for an internal source. An obvious candidate is the Lith. verb *rìsti*, *ritù* 'roll,' relatable to Slavic **rit-* in R. *rtut* 'mercury' (an old active participle meaning 'one that rolls'). This connection is rejected by Frankel on the grounds that the /i/ in *rit-* is part of the root, as is shown by the diphthongs in *riēsti* 'curve, bend,' *raitýti* 'roll.'

As a categorial statement, this is too strong. The /i/ in *rìsti* could represent the zero grade of a vowel after /r/. In Baltic, ablaut remained productive for a long time after the syllabic sonants acquired an adjacent /i/ or /u/, and the inserted /i/ of the zero grade could be reinterpreted as part of the stem and used to form new derivatives with different ablaut grades (Stang 1966:121).

Examples are:

Lith. *brìsti*, pres. *brendù* 'wade, ford,' *braidýti* [iterative], *bradà* 'muddy place'; compare Slavic (Rus.) *brestí*, pres *bredú* 'wade,' *brodít* (iterative), *brod* 'ford.'

Lith. *skrìsti*, *skrendù* 'fly,' (iteratives) *skraidyti*, *skraidžioti*, adj *skradnùs* 'fast flying.'

It is then both possible and desirable to link Lith. *rātas* to *rìsti* and *raitýti*. The verb *riēsti* may either belong with the root **rt-* or that of **writ-* 'twist, writhe.'

4 Lith. *saīkas* (4, dial 2) 'dry measure, vessel for measuring' seems to be from *síekti* 'reach, get, equal a certain amount,' *seikēti* 'measure' and need not be identified with ON *sār*, OE *sā*, m. 'tub'

6 Lith. *saĩtas* (2/4) 'tie,' pl. (2) 'bonds' is a clear derivative in *-tas* from *siẽti* 'link, tie,' with normal accent and form. One of its glosses is *sąsaja* (the action noun from *susiẽti*). In these derivatives, class (2) is common, with an apparent recent overlay of class (4). There are parallel formations in Germanic with **-to-* added to the *o*-grade form of the verbal root **sej-*. Illič-Svityč cites the OHG neuter *seid* 'cord' rather than the masculine *seito*. He uses the OPr. *largasaytan* 'stirrup strap' as evidence for Proto--Baltic neuter. These formations are so productive that it is unprofitable to compare individual items, rather than patterns. Lith. has a rather clear pattern of class (2) accent. Unless we believe that that reflects an IE pattern, we should not use these forms for reconstruction of individual IE words.

2 Lith. *tānas* (4, 2 in documents) 'swelling,' glossed in DLK as *sutinimas* (the action noun from *sutinti* 'swell'), is obviously to be derived from *tinti* 'swell,' and only related at the root level to Gk. *tónos* 'stretched string, tension.' The same should be true of the dialectal *tānas* reported by Illič-Svityč to mean 'tumor.'

5 Lith. *žanĩbas* 'cutting edge, border' has the same form as Latv. *zuobs* 'tooth,' R. *zub* 'tooth,' Skt. *jámbhas* 'long tooth, tusk.' One could use the last three to justify an IE word for 'fang' or 'tusk.' The Lith. word hardly fits this meaning, and must be considered a new derivative from *ženĩbti* 'cut.'

These forms have an average score of 5.0, which is much higher than the reasonable to good candidates.

Putative cognates of oxytones/mobiles are:

0 Lith. *baĩgas* (4) 'rainstorm,' related to *bangà* 'wave,' *bangùs* 'pouring (of rain),' *biĩgti* 'rage' (Skardžius 1941:32). This word obviously has the same root as Skt. *bhangás* 'wave,' but there is no pressing reason for assuming they go back to the same word.

0 Lith. *dāgas* (4) 'burning, fire, summer heat' is clearly from *dėgti* 'burn.' Skt. *nidaghás* 'summer' again shares the root, but need not come from the identical word.

0 Lith. *laĩkas* (4) 'time, term, death' is a deverbal formation from *likti* 'remain.' Gk. *loipón* 'something remaining' is likewise from *leípō* 'remain.' The semantics of the individual

nouns do not invite the conclusion that they are the reflexes of the same IE deverbal, rather than just parallel formations.

- 0 Lith. *samdà* (4) 'rental, hiring' seems a perfect match for Skt. *samdhā* 'agreement, treaty,' but it almost certainly has a different derivational history. The Skt. is a compound of the preverb *sam-* and the reduced verbal root of *dhē* 'put, do.' Baltic and Slavic have formations of similar origin, but the Balto-Slavic formations are generally *o*-stems. The Lith. words are generally of accent class (2), while the Slavic forms generally have end stress. Examples are: Lith. *iñdas* 'dish,' *ùždas* 'deposit,' *priēdas* 'addition,' *pādas* 'bottom of stove,' S-Cr. *príd* 'addition,' Sln. *pòd* 'floor,' R. *sud* 'court.' A Lith. word in *-das* from *sudēti* 'put together' does exist: *saĩdas* (2) 'treaty, agreement.' This corresponds formally to Slavic *sodŭ*, R. *sud* 'court.' There is also a secondary verb *samdýti* 'hire, rent.' Since *samdà* is defined (DLK) as *samdýmas* (the action noun from *samdýti*), it seems reasonable to postulate a derivational chain: *sudēti* > *saĩdas* > *samdýti* > *samdà*.

- 0 Lith. *šlākas* 'drop' is rather obviously derived from the verbs *šlėkti* (pres. *šlėkia*) 'sprinkle' or *šlikti* 'pour,' and we need not identify it with ON *slag* 'rainwater,' even if we should accept the reconstructed form of the stem as **(s)k*loko-*.

- 0 Lith. *žalà* (4) 'harm' is related by Illič-Svityč to Gk. *kholē* 'bile, poison, spite.' The Greek word is best related to words for the colors green or gold, e.g., Lith. *žālias* 'green.' The Lith. *žala* has cognates in R. *nazola* 'grief,' OI *galli* 'harm,' Dan. *galle* 'harm, pain.' If the two roots are connected, the relationship is not so close as to force us to assume that the Lith. and Gk. forms go back to a single word.

This set of putative cognates have an average score of zero. When we compare this to the 5.0 for the candidates from barytones, we can see that for the unreliable cognate pairs, Illič-Svityč's proposal works very well.

The rest of Illič-Svityč's proposed pairs are sufficiently unreliable that I will simply list them, with comments.

The following pairs are to be rejected because the semantic ties are too vague or there are better internal etymologies.

Lith. *ardaĩ* (4, rare dial.2) 'poles where flax or grain is hung to dry' is not relatable to Skt. *árdhas* 'side, place, country.' Frankel considers the Lith. a borrowing from Karelian *ardo* 'device for hanging nets.'

Lith. *brangà* (4) 'swelling' is rather clearly an internal derivative from *brìngti* 'swell,' and should not be identified with ON *branga* 'clamp.'

Lith. *gānas* (4) 'herdsman' is identified by Illič-Svityč with Skt. *ghanás* 'striker, killer, club.' This is obviously untenable. The roots are related, but the Skt. noun is derived from the Skt. verb *hanti* 'beat, kill,' and the Lith. noun is derived from the Lith. verb *giñti* 'drive' or its iterative *ganýti* 'herd.'

Lith. *kāpas* (4/dial rare 2) 'grave' is identified by Illič-Svityč with Gk. *skáphos* 'time for digging vineyards.' The semantics alone would be enough to reject this pair, even if there were no formal problems. Illič-Svityč assumes a mobile **s-*, and a spurious change of **p* to *ph*, relating the noun to the verb *skáptō* 'dig.' The Lith. form has verbal sources in Balto-Slavic: R. *kopát* 'dig,' OPr *enkopt* 'buried.' If we take into account the accepted relatives Lith. *kapóti*, Latv. *kapāt* 'chop,' Lith. *kōpa*, Latv. *kapa* 'dune,' R. *kopà* 'bundle of sixty sheaves,' Sln *kópa* 'pile, haystack,' we can relate the Balto-Slavic verbs to Gk. *kóptō* 'hit, chop' rather than *skáptō* (Vasmer II, 317). We might even suggest that the original meaning in Baltic had more to do with building up burial mounds than digging into the ground.

Lith. *kaĩpas* (4/dial 2) 'notch, cut off piece, dress length' is obviously derived from *kirpti* 'cut.' Illič-Svityč relates the word to OHG *scharf*, m. 'crock.'

Lith. *kutaĩ* (4) 'fringe': Gk. *kútos* 'container, cover, cavity.' Frankel considers the Lith. word a borrowing from Polish *kut*.

Lith. *laũpai* (2) 'torn off rind, bark' is rather obviously a derivative of *lũpti* 'strip off,' and need not be identified with Gmc. **loupa-* 'foliage,' in OHG *loub*, O Sax. *lof*.

Lith. *māzgas* (4) 'knot' is from the verb *mēgzti*, pres. *mēzga* 'tie,' and is not to be identified with Gk. *móskhos* 'sprout.'

Lith. *miēgas* (4) 'sleep,' Latv. *miegs*, OPr *maiggun* 'sleep' are related to the Old Lith. athematic *miegmi* 'sleep' and modern Lith. *migti* 'fall asleep,' R. *mžit* 'blink, doze.' Illič-Svityč

identifies the Lith. word with Skt. *meghás* 'cloud.' The Skt. word rather belongs to the group with Lith. *miglà*, R. *mgla* 'mist,' R *mžit* 'drizzle' (cf. discussion of *miglà*). If the roots for 'sleep' and 'rain' are ultimately to be linked, they had certainly undergone differentiation long before the nouns were formed.

Lith. *nařsas* (4) 'courage' is derived from *niřsti* 'be angry' (with the suffix *-s-as*) and should not be identified with the Greek word *nósos* 'sickness, suffering.' Illič-Svityč cites a dialect form with accent class (2) in the area of Gružiai. K. Garšva of the Institute of the Lithuanian Language and Literature of the Lithuanian Academy of Sciences (personal communication) informs me that that dialect does not distinguish between classes (2) and (4).

Lith. *piřštas* (2/4) 'finger': Skt. *prřtām* 'back of an animal, top of something'

Lith. *raupaĩ* (4/3) 'smallpox,' related to Latv. *raupa* 'goose skin' is for some reason related by Illič-Svityč to OHG *roub* 'plunder, loot.'

Lith. *skalà* (4) 'lath' is an internal derivative from *skelti* 'split,' and should not be directly related to Skt. *kalā* 'a small part.'

Lith. *skiētas* (2) 'weaver's reed': OHG *scit*, O Fris *skid* 'log cut for firewood.'

Lith. *spaudà* (4) 'press, seal' and Gk. *spoudē* 'effort, zeal, haste,' are to be derived from their respective verbs: Lith. *spáusti* 'press, print,' Gk. *speudō* 'strive, hurry.'

Lith. *šāpas* (4/2) 'blade of grass, straw' is hardly to be related to Skt. *śāpas* 'driftwood.'

Lith. *tarpà* (4), defined in LKŽ as *tarpiimas*, the action of the verb *tařpti* 'bloom, thrive,' is clearly to be related to that verb, and is not to be identified as the same IE word as Goth *darba* 'need, lack.'

Lith. *vaĩkas* (4) 'stretcher for skins' is an internal derivative from *vĩlkti* 'drag, pull,' and should not be identified with Gk. *holkós* 'windlass.'

Lith. *žāras* (4) 'crowd, pack,' adv. *žaraĩs* 'helter-skelter' is, if anything, to be related to the verb *žēřti* 'pour, strew,' rather than Gk. *chorós* 'round dance.'

The following pairs are to be rejected because they do not match formally:

Lith. *blusà* (2) 'flea': Gk. *psúlla* 'flea.'

Lith. *desimtis* (3) is a converted consonantal stem, as can be seen from the gen. pl. *desimtũ* (Stang 1966:280). It therefore cannot be identified with the Germanic *i*-stem attested in ON *tiund*.

Lith. *grandis* (4) 'chain link': Skt. *granthís* 'knot'

Lith. *kāklas* (4) 'neck': Skt. *cakrám* 'wheel.' The Skt. *c* indicates that the vowel was **e*. Gk. *kúklos* 'wheel,' a barytone, is a better candidate, if we can assume a change of **o* to *u* between labiovelars.

Lith. *kìnis* (2) 'lair': Skt. *khanís* 'mine.' Quite aside from the fact that the Academy dictionaries give *kìnis* as a **jo*-stem, the stem vowels are not the same.

Lith. *kuprà* (2/4) 'back,' an *a*-stem: OHG *hovar* 'hump, back,' a masculine *o*-stem.

Lith. *līdzas* (4) 'nest': Skt. *nīdām* 'nest'

Lith. *lāpas* (2) 'leaf': Gk. *lépos* 'pod.'

Lith. *nāgas* (4) 'nail': Skt. *nakhám* 'nail.'

Lith. *namaĩ* (4, 2 in 17th century documents from Prussian Lithuania) 'home.' If we accept the allative *namõn* as evidence that this word was a neuter, then it cannot be identified with Gk. *nomós*, m. 'living place, pasture.'

Lith. *naktis* (4) 'night' is a converted consonant stem, as can be seen from the gen. pl. *naktũ*. It therefore cannot be related directly to the Skt. nom. pl. *náktīs*, with the form of an *i*-stem.

Lith. *pādas* (2/4) 'sole, stove base': Gk. *pédon* 'soil.' *Padas* is probably formed from the preverb **po-* plus **-dh-os*, the reduced form of **dhē-* 'put' (cf. the discussion of *samdā*). At any rate the vowels are different.

Lith. *sakaĩ* 'resin': Gk. *opós* 'fermenting juice.' The Gk. lacks a trace of the initial **s*.

Lith. *stam̃bas* (4/3) 'stalk, stump' should not be related to Skt. *stambás* 'clump of grass, bush,' but to *stambhas* 'post, stem, trunk of tree,' which is not attested with an accent.

Lith. *strāzdas* (4) 'thrush' does not formally correspond to Gk. *stróuthos/strouthós* 'swallow,' although Illič-Svityč proposes

dissimilative loss of the *s with compensatory lengthening of the preceding vowel in order to make it match. Vasmer rejects the connection.

Lith. *šākės* (2) 'pitchfork': Skt. *śākhā* 'branch.' The length of the root vowel in Skt. does not match the shortness of the Lith. and cannot be generated by Brugmann's law before *kh*. The Lith. word should anyway be considered an internal derivative from *šakà* 'branch.'

Lith. *šùlas* (4) 'wooden post, stave,' an apparent old masculine in Baltic (cf. Pr. *sulis* 'stave') does not match Gk. *ksúlon* 'stump, post.'

Lith. *talpà* (4) 'capacity' is mentioned by Illič-Svityč as related to a Skt. word *talpā* 'bed.' I found only masc. *talpás*. The Lith. word is anyway clearly derived from *tilpti* 'find room for.'

Lith. *tiñklas* (2) 'net': Skt. *tántram* 'loom.'

Lith. *vākaras* (3, rare dial., ms. (1) 'evening': Gk. *hēspēros* 'evening.'

Lith. *vieta* (2) 'place': OHG *weida* 'hunt.' The Lith. word is obviously the same as Latv. *vieta* 'place,' *pavietāt* 'lodge,' and the Baltic words are to be related to Slavic *-vīti*, 'live, welcome.' This means that the Baltic words are to be traced to a stem **veit-*, since **ei* yields *ie* in East Baltic and *i* in Slavic. The Germanic form, however must be traced to **voita*.

Ilič-Svityč argues that *i*-stems which reflect consonantal stems also reflect the original accent. Although this runs counter to the strict conditions on identity used in this work, it is perhaps worthy of investigation. The merger of *C*-stems and *i*-stems began in the acc. sing. and pl., where because the syllabic nasal yielded /iN/, the endings were identical. At some later point, all the consonant-initial affixes with the consonantal stems were replaced by the corresponding ending from the *i*-stem paradigm. The switch to the *i*-stem paradigm then only required the replacement of the rest of the endings.

Lith. *debesis* [gen. pl.] *debesų* (3, rare dial. 1): 'cloud,' Latv. *debess* 'sky' has an unexplained *d*, but absolutely everyone accepts its identity with Slavic (OCS *nebo*, pl. *nebesa* 'sky,' Skt. *nābhas*, n. 'fog, sky,' Gk. *néphos* n. 'cloud.'

Lith. *naktis*, [gen. pl.] *naktũ* (4) 'night': Gk. *nux*, *nuktós* 'night.' The Greek shows a change of *o to /u/ before the labiovelar (cf. Hamp 1961). Illič-Svityč, who was trying to compare *naktis* to Skt. *náktis*, found evidence for class (2) accent in a dialectal adverb *nāktije*.

Lith. *dešimtis*, (gen. pl.) *dešimtũ* (3, rare dial 1) 'ten' can be identified with the Slavic *deset-* (OCS nom. pl. *desęte*, gen. pl. *desętu*) 'ten' and the Skt. *dasát-* 'a group of ten.' The dial. variants with fixed initial accent cannot be explained as retention of an accent agreeing with Skt. since the Skt. form has accent on the second syllable. It is reasonable to trace them to the influence of the common use of the indeclinable *dēšimt*. It is the initial accent on this form which needs explaining. It cannot be a residue of the old nom. of the *t*-stem, since final **t* disappeared. We would expect **desj* (cf. Old R. *desja*). It must be a reduced form of the acc. sing *dēšimtj*. If so, its initial accent is part of the normal pattern of alternation for class (3). We therefore need not postulate an older pattern with fixed accent.

Lith. *pilis*, (gen. pl.) *piliũ* (4/rare dial 2) 'castle, mountain' (see above in section IV). This corresponds to Skt. *pur*, (gen), *purás* 'castle, hill.' The gen. pl. *piliũ* is the regular form for an **i*-stem, so this casts some doubt on the claim that this form was once an athematic stem in Baltic.

If we accept the above explanation of the sporadic initial accent in *dešimtis* (it certainly does not preserve the Skt. accent), then the two cognates of barytones and the two cognates of oxytones would each have an average score of 2, so these forms add nothing to the argument.

Conclusion

It is reasonably clear that the better the etymology, the harder it is to justify Illič-Svityč's claim that there is a correlation of the barytone/oxytone opposition in Greek, Sanskrit and Germanic with the fixed/mobile accentual opposition in Lithuanian. If the weighting system that was used in this study is at all reasonable, we can conclude that for reasonable candidates for reconstructable words, there is no difference between cognates of barytones and

cognates of oxytones. One may of course question not only the weighting system but the individual judgments on what is and what is not a reasonable pair to be used for reconstructing a word in IE. I hope that I have provided enough information for reasonable people to make their own judgements.

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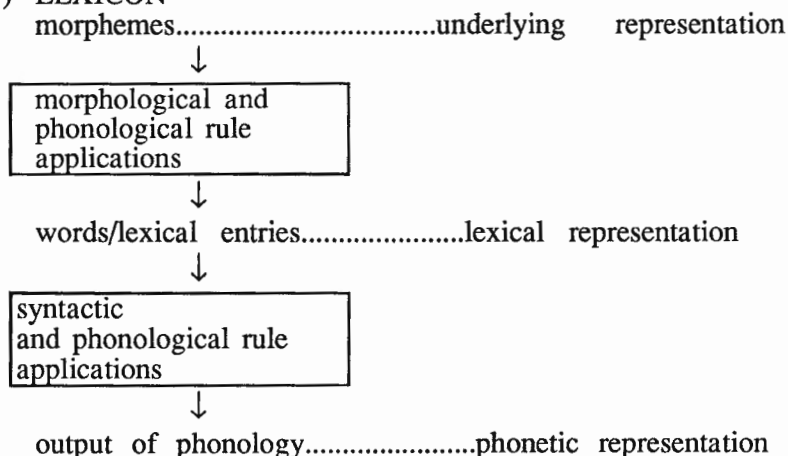
TOWARDS A LEXICAL PHONOLOGY OF CHUVASH

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1. Chuvash and Lexical Phonology

Introduction. Since the early 1980's, the theory of Lexical Phonology has attempted to deal with a number of issues unresolved by both classical Generative Phonology and its offshoots. At the same time, Lexical Phonology has confronted the challenges to phonological theory provided by the developing theory of morphology. The current result is a theory characterized by the existence of modularized levels at which rules are grouped by type. One set of rules, called 'lexical phonological rules' (the traditional-minded may read 'morphophonemic rules' here) operates on underlying forms and interacts with such morphological processes as derivation and inflection. Following the application of all lexical phonological rules, a representation is reached called the *lexical representation*. This is essentially a classical phonemic form without a biuniqueness requirement attached to its representation. Then the syntactic component of the grammar operates, following which a set of phonological rules called *postlexical rules* (here, the traditional-minded may read 'allophonic rules') applies to the lexical representations to produce phonetic forms. Figure (1) presents the theory schematically following Mohanen 1986.

(1) LEXICON



Underlying representations may show a considerable degree of abstraction. In currently evolving versions of the theory (Kiparsky 1982:169, Mohanan 1984), underlying representations are underspecified.

Lexical Phonology has allowed for certain advances in the organization and clarity of phonological theory. In a sense, some of these advances have been achieved by looking backwards. For example, level ordering of the morphological rules and their interaction with phonological rules appropriate to each level captures a fact long known to historical linguistics, namely, that paradigmatically conditioned morphophonemic variation is endemic in human language. Stating this overtly by the form of the theory is an advance over the use of arbitrary boundary types and/or readjustment rules. Lexical Phonology has also reestablished the phonemic level as a legitimate component in phonology. Indeed, very strong claims are made for the psychological reality of this level in Mohanan 1986. Thus it is possible to say that once again phonological representations are made on three levels—phonetic, phonemic and morphophonemic—though there are of course certain crucial differences in the nature of the levels when compared to classical structuralist phonology. As noted above, underlying representations may be quite abstract, and there is no biuniqueness requirement attached to the lexical phonological representation.

Lexical Phonology has also allowed new attention to be focussed on the inherent differences between morphophonemic and allophonic rules. As summarized in Kaisse and Shaw 1985, these differences are as follows:

(2) Lexical Phonological Rules	Postlexical Phonological Rules
- neutralizing	- non-neutralizing
- may show exceptions	- exceptionless
- do not apply across word boundaries	- apply across word boundaries

Like any novel theory, Lexical Phonology solves certain problems in the existing field of inquiry while at the same time raising new ones. This paper attempts to extend the range of analysis in Lexical Phonology to a language hitherto unexamined in the framework. The language in question is Chuvash, a Turkic language spoken in the Chuvash ASSR, some 500 miles east of Moscow. The primary focus of the analysis is inflection.¹

2. Levels

A question that initially arises when dealing with an extensively affixing language in a Lexical Phonology framework is that of how affixation takes place. The simplest starting point is to assume that all morphology/phonology interactions occur at a single level unless it is possible to demonstrate it must be otherwise. It might also be assumed that corresponding to the traditional distinction between inflection and derivation there will be at least two different levels of affixation characterized by a distinct (or at least partially distinct) set of lexical phonological rules. In Chuvash, as in many other languages, this turns out to be the case. But does all derivation occur at one level? And all inflection at another? There is no *a priori* reason to expect one situation or the other. Several different languages (Malayalam, Welsh, Turkish) can be shown to have two levels of compounding. English requires two levels of derivational affixation.

The location of vowel harmony rules in a lexical phonology is also of interest. Superficially, vowel harmony has properties of a low-level phonetic process, being a straightforward type of feature assimilation. But viewed from the perspective of Lexical Phonology, vowel harmony in Chuvash and many other languages is indisputably lexical in nature: it is neutralizing, feature preserving, and it shows exceptions. Vowel harmony rules must apparently apply on every level of the lexicon, if a word-based morphology is to be maintained.

Level 1: Derivation. I will assume that Level 1 is the level of derivation. I have not yet investigated derivation in enough detail to discuss whether must be split into more than one to allow for verbal versus nominal derivation. Assuming a word-based morphology, though, does lead to the further assumption that substantive and verbal derivation has occurred prior to such morphological processes as pluralization and inflection.² Furthermore, derivational forms do not show evidence of any rules of affrication or consonant deletion that are like those found with inflected forms (such as, for example, a rule that affricates *t* to *č* in certain environments; cf. example 8). This rule does not apply across derivational boundaries (in fact, the sequence *ntš* does not appear to occur across derivational boundaries); nor does the affrication rule apply word internally: cf. *šēnter*- 'to win').

Certain forms of consonant deletion are also found in inflectional but not derivational forms, and vice-versa.

Level 2: Inflection. The greatest morphophonemic complexity is encountered at this level, where a number of level-specific rules can be shown to apply cyclically. In some instances, notably vowel harmony, rules may apply vacuously as well.

Possessivization. Since the order of affixing in Chuvash is Noun Stem-Possessive-Plural-Case, contrary to the expected Turkic order Noun Stem-Plural-Possessive-Case (and rare in language generally), the first rules to be discussed apply to possessive forms.

The possessive affixes are presented in (3).

3.	Singular	Plural
	1P - <i>Ųm</i>	- <i>ŲmŲr</i>
	2P - <i>u</i>	- <i>Ųr</i>
	3P - <i>ě</i> ~ - <i>i</i>	- <i>ě</i> ~ - <i>i</i>

These possessive forms are characterized by two primary lexical phonological rules, Vowel-Drop and Affrication. A suffix-initial vowel is preserved when it is full: *ulma* 'apple,' *ulmu* 'apple-2 PSing. Poss..' When the initial vowel of the suffix underlying form is reduced, it is deleted and the stem vowel is preserved: *[[ulma]ămăr]* 'apple-1 Pers. Pl. Poss.' → *ulmamăr*. The rule is thus: conserve a full vowel nucleus; when there are two full vowels in succession conserve the rightmost one. In the following example, 2 Person Singular and 1 Person Plural are given as examples of regular possessive affixing.

4.		Level 2: Inflection
<i>[[ulma]U]</i>	<i>[[ulma]ĂmĂr]</i>	Morphology: 2 Pers.Poss., 1 PPI Poss
<i>[[ulm]U]</i>	<i>[ulma]mĂr]</i>	Phonology: V Drop
<i>[[ulm]u]</i>	<i>[ulma]măr]</i>	Phonology: Vowel Harmony
<i>[ulmu]</i>	<i>[ulmamăr]</i>	BE (Bracket Erasure)

The 3P Poss. form shows two front vowel allophones whose alternation is predictable; the vowel is always -*i* when the stem to which it is affixed is vowel-final, and -*ě* when the stem is consonant-final.

5.	insert	- <i>ě</i> /	<i>C]N___]</i> +3 Pers. Poss
	- <i>i</i>	<i>V]N___]</i> +3 Pers. Poss	

Invoking the Elsewhere Condition, which blocks the application of further rules to already specified morphemes (Kiparsky 1985: 87ff.), we assume that 3 Pers. Poss. affixes are generated before regular possessivization. A rule I shall label Stem Affrication changes coronal stops to *č* in the environment ____] *ě* (i.e., in the 3P possessive forms—it is moot whether this rule is phonologically or morphologically triggered).

6.

			Level 2: Inflection
[iväl] 'son'	[yat] 'name'	[ulma] 'apple'	
[[iväl]ě]	[[yat]ě]	[[ulma]i]	Morphology: 3 Pers. Poss.
----	----	[[ulm]i]	Phonology: V Drop
	[[yač]ě]		Phonology: Stem Affrication
----	----	----	Phonology: Vowel Harmony
[ivälě]	[yačě]	[ulmi]	BE

The application of the vowel harmony conventions permits straightforward derivations here. The Elsewhere Condition exempts fully specified underlying vowels from the vowel harmony rules, and so the exceptional 3 pers. Poss. forms do not undergo vowel harmony.

Pluralization. Following the possessivization cycle (which still contains a recalcitrant problem I will return to when dealing with case inflection), pluralization takes place. The plural VF is *-sem*, nonharmonic and nearly invariable. The only alternation occurs when plural and case affixes are combined (for which, see below).³

7.

			Level 2: Inflection
[pürt] 'hut'	[ulma] 'apple'	[kenguru] 'kangaroo'	
[[pürt]sem]	[ulma]sem]	[[kenguru]sem]	Morphology: Pluralization
---	---	---	Phonology: Vowel Harmony
[pürtsem]	[ulmasem]	[kengurusem]	BE

Pluralization triggers the rule of Stem Vocalization (Stem Voc) in two classes of nouns, the so-called *pulă* class and a class of nouns which show vowel-final nominative forms but vowel-*v* finals under other conditions, such as *tu* 'mountain', plural *tăvsem*. Despite a lack of canonical resemblance, both *pulă* and *tu* forms pattern identically. *Pulă* class forms have underlying geminates which become nongeminate and terminate in a reduced (harmonic) vowel; *tu* forms vocalize (in native words) from a vowel-*v*

sequence to a corresponding high rounded (harmonic) vowel. As well, borrowed forms that end in *ov* reduce to *o*. Stem vocalization is triggered before a non-nasal consonant or in word-final position.

8.	[kil] 'house'	[pull] 'fish'	[tāv] 'mntn'	Level 2: Inflection
	[[kil]sem]	[[pull]sem]	[[tāv]sem]	Morphology: Pluralization
	---	[[pulā]sem]	[[tu]sem]	Phonology: Stem Vocalization
	---	---	---	Vowel Harmony

The full specification of the plural suffix exempts it from undergoing vowel harmony.

Inflection to Noun stem. When case endings directly follow noun stems, three principal rules may apply in addition to vowel harmony: Stem Vocalization, *n*-Deletion, and Dissimilation. Stem Vocalization occurs in the environment stated above, and so before the Nominative (-Ø), Locative (-rV̆), Ablative (-rV̆n), and Instrumental (-pE) forms, as well as before the 'minor' **PURPOSIVE/DIRECTIONAL** suffix (-šEn). The Genitive (-nV̆n), Dative/Accusative (-nE), and minor case form **PURP/DIR** (-nE11E) do not trigger Stem vocalization. These forms all undergo deletion of their initial *n* following any consonant final stem (*n*-Deletion). (UF = underlying form.)

9.	laša 'horse'	ěś 'affair'	pull 'fish'	UF
	lašanān, lašan	ěšēn	pullān	Gen.
	lašana	ěšē	pulla	Dat/Acc

Dissimilation assures that the underlying *r* initial of the Locative and Ablative suffixes dissimilates to /t/ after stems ending in coronal liquids and nasals.⁴

10.	šiv 'water'	vārman 'woods'	Atāl 'Volga'
	šivra	vārmanta ⁵	Atāлта Loc.
	šivran	vārmantan	Atāлтаn Abl.

Possessivization-Pluralization. The plural suffix affixes regularly to possessive forms created at level 2 as well: *ivālāmārsem* 'our sons,' *ulmisem* 'their apples.' A minor rule of

assimilation of the initial *s* of the plural to alveopalatal and palatal continuants will not be presented in the derivations here.

Pluralization-Case. The final nasal of underlying *-sem* assimilates regularly to Case-suffix initial /*n*/ before *n*-Deletion applies and to case-suffix initial /*t*/ prior to another rule to be discussed next. Let us call this rule Nasal Assimilation.

- | | | |
|-----|-------------|-----------------------------------|
| 11. | tășman | 'enemy' |
| | tășmansem | |
| | tășmansenēn | 'enemy-Pl-Gen' UF: tășman-sem-nēn |
| | tășmansenčē | 'enemy-Pl-Loc' UF: tășman-sem-rē |

As example 11 shows, following the plural suffix, the Locative and Ablative show the allomorphs *-čE* and *-čEn*, respectively by a rule I shall call Case Affrication. These forms of the Locative and Ablative do not occur after Noun stems, but it is uncertain that the rule is triggered morphologically (i.e., by the presence of the Plural suffix), since the conditioning environment could well be the *n* in the environment of front unrounded vowels (as we shall see in more detail when we look at Possessive-Case affix sequences). It is difficult to find examples of noun stems that contain front unrounded vowels and that end in /*n*/ followed by the case endings in question, since most stems of this type are underlying geminates that undergo Stem Vocalization and thus remove the environment for Case Affrication. The existence of the similar Stem Affrication rule (see example 6) suggests the possibility of phonological conditioning.

- | | | | |
|-----|-------------|---------------|-------------------|
| 12. | Plural-Case | | Noun Stem-Case |
| | ivăl | 'son' | |
| | ivalsenčē | 'son-Pl-Loc.' | ivălta 'son-Loc.' |

In order to account for a complete derivation of the Loc. in 11, Dissimilation (example 10) must be ordered after Nasal Assimilation, since /*m*/ does not trigger it.

- | | | |
|-----|------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 13. | [tăšman]
[[tăšman]sem]

[[[tăšman]sem]rE]
[[[tăšman]sen]rE] | Level 2: Inflection
Morphology: Pluralization
Phonology
Morphology: Case (Loc)
Phonology: Nasal Assimilation |
| ↓ | [[[tăšman]sen]tE]
[[[tăšman]sen]čE]
[[[tăšman]sen]če]
[tăsmansenče] | Dissimilation
Stem Affrication
Vowel Harmony
BE |

Possessivization-Inflection. Possessive affixes, being vowel initial, do not trigger Stem Vocalization. However, the presence of an *n* associated with the 2P and 3P possessive forms presents an interesting problem. This segment appears only before Genitive, Dative/Accusative, Locative, and Ablative case forms (and the minor Directional affix)—that is, before just those that begin with underlying *n* or *r*. (Note that the *n* does not appear before the Purposive affix *-šEn* so mere coronality of the segment following the *n* does not appear to be the factor determining its appearance.)

- | | | |
|-----|-----------------------|-----------------------------|
| 14. | ivăl-u 'son-2P Poss.' | ivăl-un-ta '2P's son-Loc.' |
| | ivăl-ě 'son-3PPoss.' | ivăl-ěn-če 'son-3Poss.-Loc' |
| | ivăl-pa 'son-Inst' | ivăl-ě-pe 'son-3Poss-Inst' |

Note here as well that the presence /n/ in the 3Poss also triggers Case Affrication. Case Affrication is thus limited to just those instances when case endings follow possessivization or pluralization, which is to say, it occurs after *n* in the environment of unrounded front vowels. As to its failure to appear with other possessive forms, Case Affrication by definition can only show up after 3Poss. forms, since all other forms either show a non-assimilating /m/ or /r/ preceding the case suffixes (-Ăm, -Ămar, -Ăr), or show a high back rounded vowel (2P. Poss-U).

15. ivălunta 2S Poss-Loc
 ěnünte (ěnemre 1 pers. poss-loc)
 ivălěňče
 xěřěňče
 lašinče

It is very tempting to draw a conclusion about the presence of this segment from parallel data in Turkish. In Turkish, there is little doubt that an *n* that appears in all oblique forms of the 3P poss. (and the 3P Pro *o(n)*) is underlying, and is deleted only when the 3P Poss. suffix (or 3P Pro.) is not followed by further affixes.

16.	ada 'island' (Turkish)	xěr 'girl' (Chuvash)
	ada-si 3P Poss.	xěř
	ada-sin-in 3P Poss.-Gen.	xěřn
	ada-sin-a 3P Poss.-Dat.	xěřnē (sic) Dat./Acc.
	ada-sin-da 3P Poss.-Loc.	xěřnče
	ada-sin-dan 3P Poss.-Abl.	xěřnčn
	ada-sin-i 3P Poss.-Acc.	xěřpe Inst.

But the deletion route in Chuvash is apparently complicated by the theory of Lexical Phonology. The problem lies in the requirement of a word-based morphology and the way it interacts with cyclic rule application. It seems clear that the Chuvash situation would have to be considered a subset of the more general rule in Turkish; the Chuvash 2S/3P Poss. *n* would be dropped in word-final position or before cases beginning in non-coronal or non-anterior consonants. But, since all rules in the cycle at a given level must apply where possible with each morphological operation, we would be forced to delete an underlying final 2S Poss and 3P Poss *n* on the cycle at which possessivization takes place, thus rendering the form incorrect for the application of the next morphological operation.

17.	[[i.vǎ]ǎn]	Morphology: Possessivization
	[[i.vǎ]ǎ]	Phonology: Poss-N-Drop
	*[[i.vǎ]ǎ]te]	Morphology: Case

When, on the second cycle, case affixation applies, we already have an incorrect form. To reinsert the *n* is pointless—we might just as well assume it is always inserted. As always, there are several possible solutions.

- a. Insertion of *n* may in fact be the rule, as Kreuger (1961:121) suggests.
- b. Locative and ablative forms may be underlyingly -nrE and -nrEn; n-Deletion gets rid of the Loc. and Dat. initial *n* for free.

- c. A post cyclic lexical rule gets rid of the *n* in the appropriate environments after all cyclic operations at this level. (This is not a postlexical rule, however, as we must assume that the lexical representations of a form like 'son-3PPoss.' is /ivälě/ since lexical representations are virtually phonemic in the theory.)

Objections are, point by point:

- a. Little phonetic motivation, but a rule of n-Insertion could be assumed to be fully morphologized.
- b. The underlying representation is difficult to justify as anything but an analysis of convenience. The resulting canonical form is wildly outside Chuvash syllable structure.
- c. The introduction of one post-cyclic rule overcomplicates the analysis and indeed the theory. However, Kiparsky 1982 claims that the existence of post-cyclic Lexical rules is necessary in Lexical Phonology.

I shall tentatively conclude that there is a morphologized rule of n-Insertion before Loc. and Ablative forms, as Kreuger (1961:121) suggests. The forms show a further twist in that the vowel which marks the possessive is deleted in the Dative/Accusative case forms (recall the anomalous *xěrně* in example 16) *in just those words which were underlyingly consonant-final*:

18. C-stem	2 P.Poss.	2P.Poss-D/A	3 P.Poss.	3P.Poss.-D/A
iväl	iväl-u	iväl-Ø-na	iväl-ě	iväl-Ø-ne
V-stem	2 P.Poss.	2P.Poss-D/A	3P.Poss.	3P.Poss-D/A
ača	ač-u	ač-u-na	ač-i	ač-i-ne

No apparent phonological conditioning is present. The most likely candidate for phonological conditioning environment would be the presence of a reduced vowel after a (stressed) full vowel; but other forms show a reduced vowel between an initial (stressed) vowel and a following full vowel, such as *lašăra* 'horse-2Pl Poss.-Loc.' These forms put the theory to another test. Since rule application is cyclic, there is no way for a rule of 2/3 Poss V-Del to determine which stems were underlyingly vowel final and which were consonant final. The more general rule of Vowel-Deletion (cf. examples 4 and 6; "when there are two full vowels across a bracket, conserve the rightmost one") that deletes stem or affix

vowels must apply at the possessivization cycle. If a rule that drops 2S Poss vowel cannot look back to the underlying form of the noun stem at that level, it is difficult to say just what the conditioning factor might be that triggers the 2S Poss V-Drop.

19.		Level 2: Inflection
	[[i v ə l]U]	Morphology: Possessivization
	----	Phonology: V-Delete
	[[i v ə l]u]	VH
	[[[i v ə l]u]nE]	Morphology: Case (Dat/Acc)
	----	n-Deletion
	[[[i v ə l]u]na]	VH
	[[[i v ə l]na]	2/3 Poss V-Drop
	[i v ə lna]	
	Correct form: [a č u na]	

Note that this problem does not arise with 3Poss forms; there, the rule can be clearly stated to drop only the reduced V form of the 3Poss, i.e., the form that occurs after consonant stems.

The rule of 3 Poss. V-Drop thus appears to be: $\check{e} \rightarrow \emptyset / \text{---} \dots] \text{Dat/Acc}$

20.		Level 2: Inflection
	[[i v ə l]č]	Morphology: Possessivization
	----	Phonology: V-Delete
	[[[i v ə l]č]nE]	VH
	----	Morphology: Case (Dat/Acc)
	[[[i v ə l]č]ne]	n-Deletion
	[[[i v ə l]n]e]	VH
		3 Poss V-Drop

We must therefore conclude that a purely morphologically marked exception occurs in the case of the vowel-final 2S Poss forms that fail to show 2/3 Poss V-Delete. The theory does not appear to provide a way out.

In the Loc. and Abl forms, we see again that Case Affrication applies, irrespective of the origin of the (apparently) triggering /n/. It will be necessary to order the n-Insertion rule before both Dissimilation and Case Affrication.

21.		Level 2: Inflection
	[[iɤ̌]ɛ]	Morphology: Possessivization
	---	Phonology
	[[[iɤ̌]ɛ]rE]	Morphology: Case (Loc)
	[[[iɤ̌]ɛ̃]rE]	Phonology: n-Insertion Ø
	[[[iɤ̌]ɛ̃]tE]	Dissimilation
	[[[iɤ̌]ɛ̃]čE]	Case Affrication
	[[[iɤ̌]ɛ̃]te]	Vowel Harmony

The 2S Poss. forms like *ivālunta* suggests that Case Affrication is indeed triggered by a phonological environment; they show no unrounded front vowels. But corresponding 3Poss forms, whether of underlying C or V final stems show Case Affrication: *ivālěńče*, *lašinče*.

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NOTES

¹Transcription follows the North American standard. In addition, ɤ̌ and ɛ̃ represent low back and front reduced vowels, respectively; capital letters represent their archiphonemic (underspecified) equivalents; š represents a palatal fricative.

²It is also probably the case that there is a special level of derivation which follows the inflectional level. Chuvash, like other Turkic languages, shows a set of compounds characterized by the structure

N N+3 Person Possessive.

vărman xulăx-ě 'forestry' < forest economy-3 pers. poss.

kolxoz uy-ě 'kolxoz field' < kolxoz field-3 pers. poss.

Given the word-based morphology that Lexical Phonology employs, we must assume as the simplest case that inflection precedes the creation of these compounds. I can offer no arguments at present for a special rule of Compounding Inflection that would permit this type of compound to be generated prior to inflection. However, it will be the case that these compounds must loop back up to the level at which possessivization is carried out in order to show regular possessive endings ('our forest management' etc.) In a version of Lexical Phonology that attempts to dispense with looping, a rule of Compounding Inflection would be required.

³The plural shows the expected front/back alternation in the nonliterary dialects (Kreuger 1962, Houvdhaugen, 1973).

⁴A minor rule changing *n* -> *y* is not presented here. I also assume the analysis of geminating stems presented in Dobrovolsky 1983.

⁵A postlexical rule voices obstruents between sonorants. /vărmana/ is thus phonetically [vărmanda].

MOLDAVIAN, PART II: KORLETJANU'S GAMBIT⁰

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1. Introduction. In the last decade, several articles and monographs published in the United States have loosened the stranglehold of Soviet language policy on the Moldavian language question, and have broken for the first time the hush which has fallen over this controversial area of Soviet and Romance linguistics. At present, some scholars not only speak candidly about the absurdity of the Moldavian situation, but are also willing to express such a view in print. In this article, I shall discuss what has been learned recently about the linguistics of the "Moldavian" language,¹ and, by highlighting some of the key observations of Bruchis 1982, shall relate the historical development of this delicate language problem to the linguistic facts presented. For the sake of chronology, let me begin with an historical/political overview of the development of the Moldavian Soviet Socialist Republic ("MSSR"), the present-day area wherein the Moldavian language is spoken. In any discussion of Moldavian, it is history and politics which are consistently regarded as justification for the literary separateness of the language; specifics, however, are most often not given.

2. The Historical/Political Development of Bessarabia and the MSSR

2.1. What Is Bessarabia? Geographically, the MSSR is known more commonly throughout the world as Bessarabia. Bessarabia is a 16,000 square mile parcel of land located between the Prut and Dnestr Rivers, bordered on the south by the Danube Delta region and the Black Sea. The Socialist Republic of Romania forms the western border of Bessarabia and the Ukrainian Soviet Socialist Republic, its eastern border. I do not enter into an extended discussion of pre-Soviet Bessarabia, because the Moldavian language question arises only after Soviet occupation. It is sufficient to note the following several points. After a long period as part of the "principality of Moldavia," which extended throughout the Middle Ages, most of Bessarabia was incorporated into the Russian empire in 1812. The remaining three counties—the southernmost three—were obtained by Russia from Romania through the Berlin Peace Treaty of 1878. The region voted for unification with Romania in 1918, ultimately

coming under uninterrupted Soviet control in 1941 as a result of the Molotov-Ribbentrop agreement (Nemoianu 1983:509).

2.2. The MSSR and the Soviet Era. Bruchis' 1982 survey of Moldavia and the Moldavian language, which Nemoianu (1983:510)² describes in his review of that book as exhibiting "excellent scholarship in the area of political linguistics," offers a comprehensive look at the history and politics of Moldavia, concentrating particularly on the era of Soviet control. It is to this work that I now turn for an overview of the significant historical developments in Moldavian from 1924 to the present.

2.2.1. The Period Spanning the Two World Wars. Prior to and during the 1924 Vienna conference with Romania, the Soviets attempted to incorporate Bessarabia into the U.S.S.R. Though they would not ultimately succeed in this endeavor until 1941, they did manage to create soon after the conference an autonomous Moldavian "mini-republic," effectively administered by Moscow, situated on the left bank of the Dnepr River (Bruchis 1982:46-47).³ This political ploy, whose goal was to de-Romanize Bessarabia and create combined Ukraino-Moldavian nationalistic pride under common Soviet control, backfired badly. Not long after the implementation of this policy, a strong sense of Moldavo-Romanian identity began to develop in the region, an identity which led to the resistance of any further Russification of Bessarabia. As an action carried out in the midst of the intensification of anti-Soviet sentiment in Bessarabia, it was Moscow's decision (coinciding with the much larger scale implementation of orthographic reform at that time under way in other outer republics of the Soviet Union⁴) to shift from Cyrillic to Latin the alphabet base of the language spoken in the trans-Dnepr region. Moscow's directive dictated the use of the Latin alphabet in Bessarabia from 1931 to 1938. This move is generally viewed today as the single greatest mistake made in the process of Russifying the MSSR (49, 57).

By 1920, Moldavian, in one way, had become substantially different from Romanian. Due to the significant contact of Moldavian speakers with those of Russian and Ukrainian, and the large number of borrowings from these two languages which made their way into the Moldavian speech, Moldavian's lexical content was changing. Though Moldavian was at that time generally considered a subdialect of Daco-Romanian, it was showing, throughout its lexica, signs of diverging from the other Daco-Romanian subdialects—most certainly from literary Daco-Romanian.⁵ Introduction of the Latin script to the region in the

1930's changed this. Soviet concern for Moldavo-Romanian identity should have been greater, its serious expression coming much too late for the Russification process at hand; Moldavians and Romanians were ethnic kindred, and the introduction of the Latin script tore down barriers to communication (56-57).

Moscow had been somewhat aware of the Moldavian-Romanian situation before it became a Moldavian-Romanian problem, and, in the 1920's, had begun a long-term policy aimed at estranging the Romanians from the Moldavians by manipulating their common language. This is evident in the foreword to Madan's (1929) grammar of Moldavian, which was officially sanctioned by the Communist Party of the Soviet Union: "...the Moldavian language is an independent language, different from Rumanian and also different from the language of all Moldavian books which were published before the formation of the Autonomous Moldavian SSR." In 1938 officially, but in practice only later, in 1941, the Cyrillic alphabet, in Russian form, was returned to the MSSR (Bruchis 1982:54, 58). This was a harbinger of the trouble to come.

By the time Bessarabia had been annexed to the Soviet Union, at the outset of World War II, the speech which Moscow sought to impose as a norm on the people of the MSSR could be described only as a confused Moldavo-Ukraino-Russian jargon. By Soviet decree, linguists educated in the Ukraine were sent to Bessarabia in order to set up a literary norm for the Moldavian language. This infuriated Moldavian linguists, who at that time were scholars speaking educated Romanian, and created greater tension between the Bessarabians and Moscow (63). World War II temporarily returned Bessarabia to Romania and, concomitantly, the Latin script to the region, but the war's end saw Bessarabia once again subjected to Soviet rule and the Cyrillic alphabet (68-69).

2.2.2. Recent History. After the war, during the 1950's, Bessarabian identification with Romania strengthened, due in large part to two factors: (1) the Russification process in the MSSR had slowed considerably; and (2) a new attitude toward Moldavian was being fostered in Soviet linguistic circles (97-103). The new attitude could be traced to the Kišinev Linguistic Session of 1951. This meeting was attended by many Russian linguists, including the then head of the Moscow linguistics group, V. Vinogradov. At the session, the prevailing atmosphere was one of condemnation of Bessarabian linguists for their "sometimes linguistically careless" statements on the separateness of Moldavian and Romanian. Interestingly significant for the ensuing change in attitude toward

Moldavian on the part of the Soviets, however, was the dissenting chord struck at this meeting by academician V.F. Šišmarev, a Romance philologist. Though he did not attend the session in person, he delivered by proxy an article which spoke to the obvious language similarities between Moldavian and Romanian, at some point even comparing the Moldavian-Romanian situation to the situation which existed with American and British English. Several years later, his words were echoed by another Russian linguist, R. Bugadov, and, together, they changed Soviet language policy toward Bessarabia for virtually a decade (104-06, 126-27).

Many would consider the 1950's to be the first significant decade in the development of Moldavian literature. Most literary works of this time were, in fact, translations of Russian or Ukrainian works, and attempts to mimic Russo-Ukrainian syntax and to inject Moldavian calques on Russian constructions and Russian vocabulary into the translations were quite obvious. Straightforward translation was not the only thing characterizing this decade—so was straightforward plagiarism. Because of the different alphabets, but otherwise virtually identical grammars, a large number of plagiarized works was discovered in the late 1950's, in both directions: Moldavian works plagiarized from the Romanian by simple transliteration, and vice versa. On a more optimistic note, the first editions of selected works by "classic" Moldavian writers of the nineteenth and twentieth centuries also surfaced in the 1950's—these in 1952-53. (For a specific discussion of the development of Moldavian literature, see Bruchis [1982:75-95, 107-14, 169-87].)

At the Eighth Conference on Romance Linguistics, held in Florence in 1956, the Italian scientist C. Tagliavani delivered the paper "Una nuova lingua letteraria romanza? Il moldavo" (subsequently published as Tagliavani 1958). This paper marked the first time that Soviet language policy in the MSSR had been criticized by the court of world opinion. Tagliavani, speaking to an audience which included a number of surprised Soviet listeners, stated that, based on data obtained from Sergievskij 1939,⁶ he had concluded that the only language differences between Romanian and Moldavian were to be found in their orthographies and in the presence in Moldavian of a large number of dialect-specific and borrowed Russian lexical items not found in Romanian (Bruchis 1982:122-23).

During the 1960's, in stark contrast to what had taken place in the previous decade, the Russification process in the MSSR again grew stronger. The resurgence of pro-independent-Moldavian-

language sentiment in the MSSR was attributed chiefly to an explosion in the publication of original works of Moldavian literature—written in Moldavian—and, in smaller part, to a change in control at the helm of the Institute of Moldavian Language and Literature. The top post at the Institute actually underwent two significant changes in this decade. In 1962, the Bessarabian linguist N.G. Korlètjanu was appointed to the position. Korlètjanu's reign lasted only seven years, at the end of which, in 1969, he was ousted by Soviet authorities and replaced by a specialist in Moldavian literature, S. Čibotaru. Both men were quite unique to the post. Korlètjanu's uniqueness lay in his defiant philosophy on language standardization. He gambled boldly on suggesting acceptance of a dialect-specific literary norm for Moldavian at a time when it clearly was not in his best professional interests to do so. He lost this gamble, paying for the failure with his job. He advocated (in 1968), in a remarkably cavalier fashion, the abandonment of aped standard Romanian pronunciation as the basis for literary Moldavian phonology and the incorporation of Bessarabian-specific, but not Russian, vocabulary into the literary language. With Korlètjanu's dismissal, Moldavian's last hope to go the "proper" way of all true dialects was never realized (213-14).

Čibotaru, in contradistinction to Korlètjanu, was the first literature specialist to hold the top post at the Institute. His presence at the Institute in the late 1960's was indicative of Moscow's modified belief that its separatist policy with regard to the Moldavian language needed a new direction, a more indirect and less heavy-handed approach to ultimate language change (217-18). This change in policy and concomitant change in control of the Institute did little good, however, as during the late 1960's and the 1970's, pro-Moldavian language cadres suffered a number of significant setbacks. At various linguistic and Romance linguistic conferences, contingents of Moldavian language specialists from the Soviet Union were greeted with difficult questions to answer about their own literary language. In most cases, these linguists answered the questions given them by simply retreating to the security of their own contrived theories and linguistic formulas for language change (see, e.g., pp. 227-45). In each instance, it was clear that their prestige as language scholars had suffered. No doubt this scenario has continued into the present decade.

3. Loosening the Stranglehold.

3.1. "How Non-Rumanian Is 'Moldavian?'" Bruchis' monograph appeared in 1982, the same year as another important open discussion of the Moldavian language question. Kazazis 1982,

published in the proceedings from a conference on the non-Slavic languages of the Soviet Union (Aronson and Darden 1982), discusses a number of the more salient linguistic features of Moldavian which are said to distinguish it from literary Daco-Romanian. The discussion is brief, because the differences are, in fact, few, but each point made by Kazazis bears recognition here, and some beg additional comment.

In the area of orthography, Kazazis notes the following.

(1) Romanian *i* corresponds to Moldavian *и, ъ, or я*: Romanian *limbă* Moldavian / *лимбэ* 'language';⁷ R *sovietici* / М *советичь* 'Soviets'; R *femei* / М *фемей* 'women'; and R *iod* / М *йод* 'iodine' (226). In 1938, Moldavian was a sound system on the verge of acquiring a new alphabet. When the decision was made for Moldavian to be written in Cyrillic characters, the problem of Romanian *i*, which represents either a phoneme or secondary articulation in that language, was relatively easy to solve: the letter *и* would be used in Moldavian to represent the full vowel [i]; the letter *ь* to indicate palatalization of a preceding consonant, as in Russian, or consonantal affricativization; and the letter *й* to represent the on- or off-glide [j]. In contemporary Daco-Romanian, automatic phonological rules must be applied by the speaker in order to obtain the different phonetic realizations of *i*.

(2) The letter *я* in Moldavian is used for both the Romanian diphthongs [ea] and [ja]: R *beată* / М *бятэ* 'drunk woman'; and R *biată* / М *биятэ* 'poor woman' (226). The Cyrillic alphabet cannot accommodate the slight articulatory difference in the Romanian [-a] diphthong with an *e*-on-glide and that with an *i*-on-glide—thus the letter *я* for both. The use of the Moldavian letters *ья* for Romanian *ia*, to make it seemingly distinct from *ea*, appears to be no more than an artificial orthographic device. Assuming the relationship which exists between Russian phonology and Cyrillic orthography holds for Moldavian phonology and Cyrillic orthography as well, the *ь* actually misrepresents the true pronunciation of the Moldavian word, giving us an additional phonemic segment—[j]; this only helps to mar the actual pronunciation of *biată*. The diphthong [ea] is also misrepresented in Moldavian; the letters *бя* represent the sequence [bja], not [bea].

(3) Moldavian incorporates into its orthography an apostrophe and a hyphen, whereas Romanian implements only a hyphen. In the area of the orthography which is relevant for us, the Moldavian apostrophe is used with proclitics accompanied by vowel elision, and a hyphen with other proclitics and enclitics: R *mă-ntrebe* / М *мэ-нтребе* 'he asks me [subjunctive]'; R *I-am văzut*

/ M Л-ам вэзут 'I saw him'; and R *am văzut-o* / M ам вэзут-о 'I saw her' (226). There is no justification for the Moldavian innovation, although this usage mirrors the earlier state of affairs in Romanian.

(4) The orthographic representation of [je] in Romanian may be either *e* or *ie*, but in Moldavian it is only *e*: R *el* / M ел [jel] 'he'; and R *ieri* / M ерь [jer'] 'yesterday' (227). Here, the Daco-Romanian articulation must be learned; Moldavian orthography simply economizes, using *e* to replace all instances of [je] in Romanian, regardless of the orthographic representation. Where Romanian *ie* represents vowels in hiatus, Moldavian will show *ие* to accommodate: R *prietenie* / M приетение 'friendship.'

In the area of phonology, Kazazis notes the following.

(1) Depending on the grammar one consults, Moldavian may (Korlétjanu 1966:532), or may not (Dyrul and Čobanu 1970), possess in its phonology a voiced [h] (Kazazis 1982:227). This clearly is an attempt to give Moldavian something which Romanian does not have in its phonology. The fact is that, even in the Moldavian subdialect of Daco-Romanian, where one sees significant phonological departures from literary Daco-Romanian, there is no voiced [h].

(2) Moldavian has hard fricatives [š] and [ž] and a hard affricate [c], but soft affricates [č] and [j] (227). This reflects the pronunciation of these phonemes found in the Moldavian subdialect of Daco-Romanian, but runs contrary to the situation observed in literary Daco-Romanian where alveopalatal fricatives are soft. Interestingly, Russian alveopalatals mirror the prescribed Moldavian articulation.

In the areas of morphology and syntax, Kazazis makes two points.

(1) Lexical items which are considered standard in Moldavian are often found as secondary entries in a dictionary of literary Daco-Romanian, where they are described as "variants," "regional," or "archaic and regional" (228). (See more on this in Section 3.2.)

(2) The masculine singular form of the Moldavian emphatic pronoun *ynsuš* 'himself' can be used for both numbers and all genders. This extended use of the single form tends to be particularly characteristic of the spoken language (228). In Daco-Romanian, all forms of this pronoun are present and in general, widespread use.

Either in passing or in summation, Kazazis makes several other observations which bear mention here. First, he comments that grammars of Moldavian on occasion contradict each other; we

have seen this already in point (1), above, in the discussion of phonology. This is also the case in what those same two involved works (Korlètjanu [1966:553] and Dyrul and Čobanu [1970:82-83]) say about the articulation of Moldavian alveopalatal fricatives. Korlètjanu states that their pronunciation is hard, whereas Dyrul and Čobanu claim that it is soft (Kazazis 1982:227). "Toying" with the literary norm to make it more distinct from Daco-Romanian, which has soft alveopalatal fricatives, is a distinct possibility here. A hard pronunciation of Moldavian alveopalatal fricatives would not suffer at all by association with the large number of Russian speakers in the MSSR. In fact, with such constant reinforcement, hard articulation could become the preferred pronunciation of Moldavian speakers.

Secondly, he notes (228) that the process of selecting a regional Moldavian dialect on which the literary language could be based was not particularly well, or even tactfully, conceived. While the language of the MSSR (Moldavian Daco-Romanian) differs in a number of ways from literary Daco-Romanian, the form of literary Moldavian prescribed in Moldavian grammars deviates inconsequentially from the Daco-Romanian literary norm. (See more on this in Section 3.2., which follows.)

In one final comment, Kazazis remarks (228) that he did, indeed, put Moldavian to the auditory test. Listening to audio tapes of Radio Kišinev, recorded in 1968, he found that "[a]ll the announcers on the tape spoke standard Rumanian, although at least one of them has a slight Moldavian accent—where 'Moldavian' refers to historical Moldavia, on both sides of the Prut."

3.2. "Moldavian Linguistic Realities." Dyer (to appear) is the most recent work on the linguistics of Moldavian. Sidestepping the problems of political linguistics, he touches briefly on the history of the ethnic Moldavians and concentrates on a comparison of the Moldavian Academy's grammar of Moldavian (referred to as Dyrul and Čobanu 1970 here and in Kazazis 1982, but in Dyer [to appear], as Korlètjanu 1970) with the Romanian Academy's grammar of literary (Daco-)Romanian (1963). Saving comments on language codification and dialectology for his conclusion, Dyer notes the following concerning Moldavian grammar.

In the area of phonology, the Romanian diphthong *îi*, before a nasal consonant, corresponds to the monophthong *y* in Moldavian: R *cîine* / M *kyne* 'dog'; R *pîine* / M *pyne* 'bread'; and R *mîine* / M *myne* 'tomorrow.'

In the area of morphology, Dyer again notes one major divergence of literary Moldavian from Daco-Romanian: the

Moldavian pronoun *dynsul* 'he/sir' (inclusive of all morphologically varying forms for number and gender) has a less restricted use in Moldavian than the same form has in Daco-Romanian. Whereas in Daco-Romanian *dînsul* functions as a polite pronoun of the first increased degree of formality (after *el* 'he'), in Moldavian, the general tendency, particularly in the spoken language, is for it not to carry such force, being ever so slightly more polite than *el*, or on a functional parity with it.⁸ The situation in both languages may be illustrated in a comparative manner as below:

(in increasing degree of respect >)

Romanian:	<i>el</i>	>	<i>dînsul</i>	>	<i>dumnealui</i>
Moldavian:	<i>el / dynsul</i>	>	<i>dumnjaluj</i>		
English:	'he'	>	'sir'	>	'his worship / lordship / majesty'

Many have pointed to Moldavian vocabulary as being a single, undeniable feature of Moldavian grammar which distinguishes Moldavian from Romanian. There is no doubt that contemporary Moldavian, as packaged by the Soviets, contains a large number of lexical items borrowed from Russian, as well as Bessarabian-specific lexica, which are not found in literary Romanian: take, for example, *klub*, *kolxoz*, and *kino*, which are borrowed into Moldavian from Russian and not found in literary Romanian; and *omèt* 'snow' (R *zăpadă*) and *mycè* 'cat' (R *pisică*), which are Bessarabian-specific lexica. The complexion of Moldavian vocabulary today is the result of 50 years of attempts at the forced injection of new words into the language. Dyer accepts such facts and comments that discussion of Moldavian's borrowed Russian and Bessarabian-specific vocabulary is central to any Soviet work on Moldavian. Thus, for example, Korlètjanu 1983, a very recent treatment of Moldavian, devotes 28 full pages to the uniqueness of the Moldavian lexicon.

Syntax is another favorite topic of argumentation for supporters of Moldavian. Moldavian syntax, too, is said to differ considerably from that of Romanian. This is due primarily to the large number of Moldavian calques on Russian constructions, motivated by the translation of Russian works into Moldavian and the language contact between Russian and Moldavian Daco-Romanian speakers in the MSSR. Recently, even Russian-type stump compounds have begun to surface in Moldavian: e.g., *korsat* 'village correspondent' (cf. *korespondent* 'correspondent' + *sat* 'village') (Comrie

1981:188). I prefer to leave a specific discussion of comparative Moldavian and Romanian syntax for another time, but see Bruchis (1982:223-24, 230-33, 240-41, 251-53) for more information.

Dyer (to appear) raises, as did Kazazis 1982, a number of other less linguistic and more political points on Moldavian.

(1) Although the Moldavian subdialect of Daco-Romanian spoken in Bessarabia differs substantially from that of literary Daco-Romanian, all but a few of its features are absent from literary Moldavian. Moldavian Daco-Romanian has three principal local dialects—northern, central, and southern—but no one of, or any combination of, these local dialects shows more than one feature in the literary norm. The Moldavian subdialect of Romanian differs from literary Daco-Romanian in 13 significant areas of the grammar, but these differences have not been utilized effectively in the codification process of Moldavian.

(2) As evidenced by the dialectal atlas of Moldavian (Udler 1968), the Moldavian subdialect of Daco-Romanian spoken in the Moldova region of Romania proper and the language spoken in the MSSR still form, as they did virtually a century ago (see Weigand 1909), a dialectal continuum, with no significant phonological or morphological differences.

(3) Recent monitoring of Soviet publications on Moldavian and Romance linguistics shows that the same Soviet language policy which has elevated Moldavian Daco-Romanian to the status of a "language" also has done so with the remaining three major dialects of Romanian—Aromanian, Megleno-Romanian, and Istro-Romanian. These four "languages," with Daco-Romanian and Dalmatian, form the eastern group of Romance (Korlètjanu 1983:10). The reasoning behind such a move is clear: for practical reasons, it is not logical to raise the "dialect of a dialect" of Romanian to the status of a language without simultaneously raising all of its "dialects" to that status as well.

Similarly interesting is the clever logic underlying the implementation in Moldavian linguistics (the first mention was in 1967) of the term "Daco-Romance language" (Bruchis 1982:242). This term was created to refer specifically to both Daco-Romanian and Moldavian. As applied to Moldavian, the term Daco-Romance allows for the simultaneous characterization of Moldavian as: (1) a Romance language; and (2) a language forming, with Daco-Romanian, a subset of Romance; but (3) a language closely related to Daco-Romanian. With such a characterization, criticism of the notion that Moldavian is not Daco-Romanian is deflected. Daco-Romance, as a term, by the very nature of its intermediate

positioning between the terms Daco-Romanian and Romance, permits, at once, the clear association of Moldavian with Daco-Romanian—a concession to the critics on the part of Moldavian supporters; the term also implies, in a two-fold fashion, that Moldavian is an independent Romance language.

4. Conclusion. Two trends apparently will survive this decade and, most likely, the rest of the century. The first is the re-worked—yet still determined—Soviet separatist policy with regard to the Moldavian language, as evidenced by two large and recent treatises on the subject appearing in just the first few years of this decade: Il'jašenko 1983 and Korlètjanu 1983. As additional proof of continued Soviet separatist sentiment, I offer some statistics culled from Talmackaja 1978, a bibliography of Soviet linguistic works on Moldavian in print through the late 1970's. Talmackaja lists 214 entries on such works, which break down as follows: 40 entries concerning "questions on the theory and history of the Moldavian literary language in the works of Moldavian philologists"; 38 entries on "Moldavian dialectology, geographical linguistics, and phonology"; seven entries on "Moldavian lexicology in the post-war period"; 20 entries on "Moldavian lexicology and phraseology"; 23 entries concerning "methods of teaching Moldavian"; 36 entries of "teaching manuals and textbooks on Moldavian"; and 50 entries of "supplemental literature." A full 85% of the works (182) were published in the 1970's, an overwhelming majority being issued specifically in 1975 and 1976.

No doubt the watchdog attitude toward Soviet language policy in the MSSR harbored by a growing number of Western scholars will likewise persist. This will be the other surviving trend.

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NOTES

⁰"Moldavian, Part II: Korlêțjanu's Gambit" was the title of a conference paper—the second in a series of linguistic-historical-political exposes on the "Moldavian" language question—which I read at the Fifth International Conference on the Non-Slavic Languages of the USSR (University of Chicago, May 13-15, 1987). Though the present article bears the same name, its content differs considerably from that of the original conference paper. I quipped at the conference that a paper on the "Moldavian" language belongs more appropriately in the program of a conference on the non-languages of the USSR, and I still feel that way.

¹Kazazis (1982:229) mentions that in his article he simply could not bring himself to omit quotation marks around the word "Moldavian" in the phrase "Moldavian language." I, too, find this a hard thing to do, but will attempt it, nonetheless.

²Nemoianu does not comment on the linguistic observations presented in the book. For the most part, I find them to be reliable. However, these linguistic descriptions are often run-on and quite frequently become muddled in their own complexity. Another problem, as Nemoianu points out (510), is that "Bruchis's excellent scholarship . . . is marred by his inadequate command of English and by countless errors in editing and transliteration, as well as by the lack of an index." This observation holds for the linguistic characterizations of

Moldavian found in the book, particularly, as well as for the book, generally. I side with Nemoianu, though, in feeling that this is an exceptionally useful and informative work on the political linguistics of Moldavia and Moldavian. A scholar who can wade through the density of text and the problems of language will have at his disposal an excellent resource.

³Bare page number references throughout Sections 2.2.1 and 2.2.2, unless otherwise specified, are to Bruchis 1982; similarly, the same type of reference in Section 3.1 will be to Kazazis 1982. Page number references in Section 3.2 cannot be noted, because "Moldavian Linguistic Realities" is still in press.

⁴Orthographic "reform" was being conducted primarily in the outer Turkic-speaking republics. The idea was to separate, by implementing the use of the Cyrillic alphabet, those Turkic-speaking peoples within the borders of the Soviet Union from those outside its borders who also spoke Turkic. Though the non-Soviet Turks, in many instances, spoke the same language as their Soviet brothers, the former did not use the Cyrillic script (Bruchis 1982:50).

⁵Literary Romanian (also Roumanian and Rumanian) is based primarily on the "subdialect" of Daco-Romanian spoken around Bucharest (Muntenian). Daco-Romanian is the most widely known of the four major Romanian dialects and the speech found throughout Romania proper. The other Romanian dialects are Aromanian, Istro-Romanian, and Megleno-Romanian. Literary Daco-Romanian may be divided further into six regional subdialects: Transylvanian, Maramureș, Crișan, Banatian, Muntenian, and Moldavian. It is generally accepted that the Moldavian subdialect of Daco-Romanian is spoken within the Moldova (northeast) region of Romania and the MSSR, though Soviet scholars will object to this characterization. Moldavian, as a subdialect of Daco-Romanian, should not be confused with the Moldavian "language," the speech of the MSSR. See Dyer (to appear) for an in-depth discussion of this point.

⁶M.V. Sergievskij, a Soviet Romance linguist, oversaw the early formulation of the separatist theory of the Moldavian language in Bessarabia. His works hinged on particular interpretations of Moldavo-Romanian dialectological data which he himself had gathered from the region. Tagliavani's paper (71, 104-05), in part, spoke to the theoretically suspect formulations of Sergievskij.

⁷In this Section 3.1 and in Section 3.2, I shall designate Daco-Romanian forms with "R" and Moldavian forms with "M." Whenever both language forms are given, the Daco-Romanian form shall occur first, followed by "/", the Moldavian form, and the English gloss.

⁸The degree of politeness imparted to *dynsul* and *el* may, in fact, vary from speaker to speaker, but the tendency for *dynsul* to possess a lesser degree of formality in Moldavian than in Daco-Romanian is still observable.

ON THE TERMINOLOGY FOR LAK SYNTHETIC PAST PARADIGMS¹

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In his book on the Daghestanian verb, Xajdakov (1975) characterizes the Lak verb as the most complicated in the Northeast Caucasian family. These complications extend to the grammatical terminology used for Lak indicative synthetic past tense forms, as anyone who reads more than one description of the Lak verbal system will quickly learn (cf., e.g., Burčuladze 1979; 1987,² Murkelinskij 1971, Murqsilinski 1980, Uslar 1890, Xajdakov 1966; 1975, Žirkov 1955). In an earlier article (Friedman To appear) I proposed that the status opposition in finite verbal forms usually marked by the morpheme *-s[a]-*, e.g., marked present *čičajsar* 'writes, does write' (as opposed to the unmarked present *čičaj*) be described by the English term **assertive** where Russian uses *utverditel'nyj* 'affirmative,' *podtverditel'nyj* 'confirmative,' *kategoričeskoe* 'categorical,' and Georgian uses *mtkicebiti* 'affirmative, assertive' (Friedman To appear). My central argument rested on the fact that the assertive forms are stylistically neutral in formal written contexts but marked as emphatic in ordinary conversation. I therefore concluded that they are marked for 'objective assertion,' which is the most common style in formal communication but becomes emphatic in everyday speech, where some degree of subjectivity is the norm. While purely formal or traditional labels may be used for various screeves as long as all participants in the discussion agree on the forms to which they refer, some type of consistency is essential for any coherent discussion. In the case of the Lak assertive, descriptive clarity as well as consistency could be sought, since the distinction itself did not have a traditionally established label. In the case of the Lak past tenses, however, traditional labels such as aorist, perfect, imperfect, and pluperfect are already in use and can, if consistently defined, function as usefully as any. The problem is that different authors use the same label for different forms so that, for example, Murkelinskij's (1971) pluperfect is Xajdakov's (1975) imperfect, Burčuladze's (1979) pluperfect is Žirkov's (1955) past (preterite), etc. I shall attempt, therefore, to propose and justify a consistent terminology for the indicative

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synthetic past tense forms in Lak.³ Tables One and Two summarize the terminological differences in seven articles and monographs concerned in whole or in part with the description of the Lak verb. Table One gives the Russian and Lak terminology, and Table Two gives English equivalents.⁴ Examples use the transitive verb *čičin* 'write' and, where appropriate, the intransitive verb *lagan* 'go.' Class One markers are used in those forms requiring class markers (screeves 4-7).

There are three screeves based on the present stem (*čič-*). Screeves 1/2 oppose the first two persons (marked by *-w*) to the third (marked by *-Ø*). Screeve 3 occurs only in the first and second persons of transitive verbs.⁵ There are five screeves based in the past stem (*čiwč-*). Numbers 7/8, like 1/2, distinguish the first two persons by means of *-w* as opposed to *-Ø* in the third. The other three screeves all have a three-way opposition of the type 1,2s - 1,2p - 3 marked by *-a*, *-u*, and *-i* or *-Ø*, respectively. With the exception of Uslar (1890), the sources of these terms are all relatively modern works describing the literary language (*Ġumuči* [Kumux] dialect). Although Uslar's work describes the *Viçqi* [Vicxi] dialect of a century ago, his terminology is included here not only because his is a pioneering work of Lak linguistics that has influenced and served as a source for generations of subsequent studies, but also because the *Viçqi* dialect does not differ significantly from *Ġumuči* with respect to verbal conjugation (Murkelinskij 1949:100). With the exception of Murq̄ilinskij (1980), which is in Lak, the terminology is all in Russian, which has been the language of publication for the majority of studies of the Lak verb.⁶

When lined up and compared to one another, these terminologies manifest a variety of inconsistencies and lacunae. Only Žirkov (1955), Xajdakov (1966), and Murkelinskij (1971) mention all eight of the Lak synthetic past screeves, and only Žirkov (1955) has distinct terms for all of them. In the case of Xajdakov (1975), the lacunae are explained by the fact that he was not attempting a complete description. In the other cases, the reasons for these gaps are not always clear, but it is worthy of note that no two authors omit the same screeves. The use of identical terms for different screeves in Xajdakov, Murkelinskij, and Uslar is explained by the phenomenon of heterogeneous conjugations. This term, taken from Xajdakov (1975), is used to describe the neutralization of (or failure to distinguish) status oppositions in screeves 1/2, 7/8 and

3/4/5. In the case of 1/2 and 7/8 in colloquial Lak, the assertive is ordinarily used in the first person and the nonassertive in the other two persons, due to the semantics of the assertive (Burčuladze 1979). In the case of 3/4/5 we have a diachronic process of relatively recent origin to be discussed in greater detail below. I shall return to these points shortly.

In the case of screeves 1/2, all of the authors except Uslar and Murkelinskij (1979:201) are more or less consistent in using a term translatable by the English 'imperfect.' Examples (1)-(3) are typical:

(1) Ca-ca čumal durčal čənnawa raɬuw xəär-xəür ɬij čartəu kəuru lagajwa. (Žirkov 1955:148)

From time to time, from under the horses' hooves, stones went rolling rumble-rumble into the gorge.

(2) Quniwx~umi zuzaltralguma, qānu biwɬun učajwa: ... (Murkelinskij 1971:200)

Even the older workers, laughing, said: ...

(3) Na həaɬinu šawa usəijaw, win qəaxəlx~ura. (Uslar 1890: 84)⁷

I today at home was, but you didn't see.

Uslar's use of the simple term 'past' for screeve 1 is explained by the fact that he assigns this screeve not to the unmarked aspect but rather to the iterative aspect (type *čičāwan*). Aside from the fact that the stem in screeves 1/2 is clearly the aspectually unmarked *čič-a-j-* and not the aspectually iterative *čič-āw-a-*, the iterative aspect, like the progressive, forms an analytic screeve 1/2, i.e., *čičāwaj* (*usə*)*ija[w]* (cf. progressive *čičləj* (*usə*)*ija[w]*). Murkelinskij (1971:201) uses the term 'pluperfect' when he is contrasting screeves 1/2 with screeves 7/8 as noncompletive vs completive. Elsewhere, however, he uses the term 'imperfect' for screeves 1/2 (Murkelinskij 1971:190-91). Uslar, too, uses the term 'imperfect,' but only for the forms of the auxiliary meaning 'be,' i.e., *ija[w]*. Both Uslar's use of 'distanced' and Murkelinskij's use of 'pluperfect' appears to be an attempt to convey the idea that screeves 1/2 function as the imperfect equivalents of all the remaining synthetic past screeves. In other words, screeves 3-8 all denote single completed actions and only 1/2 of the unmarked

aspect do not. In view of these considerations, the standard term imperfect seems entirely adequate.

In the case of screeves 3/4/5 there are two chief issues. The first is whether to convey the fact that synchronically they can be described as forming a single heterogeneous screeve, as reflected in Xajdakov's and Murkelinskij's terminologies, or to keep them distinct as do Burčuladze and Žirkov, or to tread a middle ground, as does Uslar. According to Uslar (1890:90-91), 3 and 4 were used only for events the speaker witnessed or was at least aware of at the time they took place. The difference between 3 and 4 was that 3 was limited to transitive verbs, while 4 was used for intransitives. On the other hand 5 was used for other types of past events. Thus, according to Uslar, the first person of screeve 5 was used only in situations when the speaker did not personally remember the events, e.g., something that happened to the speaker in infancy or early childhood. Another feature differentiating 3/4 from 5, according to Uslar, is that the former denote events completed in the past whereas the latter is used for states continuing into the present as in (4):

(4) Wāksəa həaldaj šawa iwkunni! (Uslar 1890:91)

How much time he has been at home! (implication: and he is still there)

In the course of the past century, according to the modern linguists, a situation has developed which parallels to some extent that in screeves 1/2 and 7/8. Screeves 3/4/5 form a single heterogeneous screeve in which 4 has become archaic except in the first person intransitive (elsewhere screeve 4 occurs only in folk tales, among older speakers, etc.), 3 is used for the first person transitive and 5 is used for the other two persons. It is clearly the case that screeve 5 is not invariably nonconfirmative, etc., as can be seen from examples (5) and (6) (cf. also Burčuladze 1979:207):

(5) Ina həaɟinu bullalisəa čakgu bəličan buwnu, mizitrawa uwkəun, jalagu kura awnu, quran kəalan iwkunnaxəa (Xalilov 1976:204).

You today, having interrupted the prayers in progress and gone out of the mosque, then having returned, began [again] to read the Quran!

(6) Qsaršunni cukunčaw šinnawun. Tšun mu tšula
jarunnin kšawkšunni, — kunu. [Xalilov 1976:214]

It has not fallen in the water at all. I have seen it with my
own eyes, — he said.

In the context of (5), the congregation is asking the mullah to explain actions that they had just witnessed. Example (6) likewise concerns a clearly personally confirmed action. The second question is the use of the term 'aorist' as opposed to the term 'perfect.' In practice, these terms can mean whatever the describer chooses, and in fact the meanings do vary considerably among language descriptions. Thus, for example, the term **aorist** is used in descriptions of Macedonian, Bulgarian, and Georgian for non-durative or punctative pasts while in descriptions of Turkish it refers to a type of gnomic present. Similarly the term **perfect** is used for a present resultative, an unmarked past that developed from a present resultative, etc. Nonetheless, some type of consistency must be established for any given language under consideration. In connection with these two problems, the relationship of screeves 3/4/5 to 6, 7, and 8 should also be considered. Burčuladze, Xajdakov and Murkelinskij all treat 7/8 as distinguished only on the basis of assertive/nonassertive. Žirkov, however, makes this same distinction for 7 and 6. Burčuladze and Murkelinskij (1979) likewise use the term 'pluperfect' for screeves 7/8, Žirkov uses it only for screeve 8, Xajdakov uses it for screeve 6, while Murqšilinskij (1980) implies that 6, 7, and 8 are all some type of pluperfect. Uslar omits 7 and 8 and treats 6 as the assertive of 3/4.

While the heterogeneous unity of 3/4/5 is clear, it is necessary for both morphological and descriptive reasons to distinguish among them. I therefore propose using the cover term 'perfect' to refer to all three and the terms 'transitive,' 'archaic' and 'unmarked' to distinguish among them. The use of 'transitive' for screeve 3 is justified by the fact that it is indeed limited to transitive verbs. Examples (7) and (8) are typical:

(7) Harcannal canma canmašša kasak butan ärkinsša xšaj,
nagu ca kasak butaw. (Xalilov 1976:210)

It seemed that each person was supposed to put in a piece,
so I have put in a piece, too.

(8) Tšun ina kičirawa xəal x~unaw. (Žirkov and Xajdakov 1962:276)

I have seen you on the street.

The use of 'archaic' for screeve 4 is preferable to the use of, e.g., 'intransitive' because it is indeed archaic in most of its uses (a fact I have been able to confirm with my native informant) and because transitive uses are still possible, albeit uncommon.⁸

(9) Na həađinu kürxəsil šawa iwəkra (Uslar 1890:90)

I was at home this morning [but not now].

(10) ... zana biwəkun lawgri kijađu usəu (Burčuladze 1979:203)

Having returned, the two brothers have left.

(11) Tanal ču bawxəuriw? (Burčuladze 1979:205)

Has he sold the horse?

By contrast with screeves 3 and 4, screeve 5 is unmarked. Cf. examples (4)-(6) above also:

(12) Žul ajğurdal həuhəu kunu, zul kəacral təjrtəu bunni.

Mij təjrdü bulara, mij žulli! (Xalilov 1976:207)

Our stallions having neighed, your mares have born colts.
Give those colts, they are ours!

(13) Tšun xəujnu kəavkəunni, ganil tank čajni, mağ lahəan durna wa šəinajn šəuna . (Xalilov 1976:214)

I have seen it well, when it jumped, it let its tail down and touched the water.

The choice of the term 'perfect' over 'aorist' is motivated by the fact that 3/4/5 are not narrative advancing screeves. They are used for statements of fact, very often — but not always — with some sense of present relevance or state. The term perfect, therefore, is used advisedly, with the caveat that it is not identical to the perfect in other languages but shares with at least some of them the qualities of denoting completion without necessarily denoting plot-advancing action.

The relationships among screeves 6, 7, and 8 are as problematic as the table indicates. It is clear on the basis of usage, e.g., examples (14)–(16) that 7 is best labeled ‘aorist’ in the sense of ‘plot-advancing past tense denoting completed acts’ and that it is not a ‘pluperfect’ or ‘distant past.’

- (14) Həqınu çansə maşınartəu bija. Qus tağa dukəan žušə qəax~una. (Murqılinskij 1980:117)

There were too few cars today. We didn't send the goods.

- (15) Čak bullaj una, təun çalan biwķuna mizirtal čira çapal bullalisə ksačsi. Allahnal qəatə çapur x~un qəabitan, na ta liqan ban lawgsəijaw. (Xəlilov 1976:204)

While I was praying, I saw a dog befouling the wall of the mosque. Not to let Allah's house be defiled, I went out to make it run away.

- (16) Graždan dāwılul çumal ... ukunsə iš x~usəar. ... partizannan maqunmaj x~un bahsəar. Partizannal həukmu buwsəar arxnu zuntəawunmaj han. Amma kəlaminnal gajnnal qiriw lajan qəst dursəar. Partizannan cala qulpatirtəşsal, rizqılışsal zuntəavun han bahləj biwķsəar. Bawtun maşwara bullalisə çumal, iwzun ca žəhlisə partizannal uwķuna: ... — kəlami na şəallusə qini baçan banna ... — Wil maq žun kulsəar, —kunu, partizantal baçin həadur qana bivķuna. Cinjaw lawķuna, žəhlisə partizanma gikəuwa liwčuna.

During the Civil War ... such an event happened. ... the Partisans had to pull back. The Partisans decided to go into the mountains. But the Whites intended to pursue them. The Partisans had to go into the mountains with all their families and cattle. During the council meeting a young Partisan stood up and said: ... —I will hold off the Whites all day. ... —Your word is known to us, — saying the partisans began to get ready to go. Everybody left, the young partisan stayed there. (Murqılinskij 1980:22)

On the basis of their morphology, 6 and 8 are clearly both marked for assertive status. The difference between the two is that the endings of screeve 6 are not marked for tense (the stem itself is

markedly past) whereas both the stem and the endings in screeve 8 are markedly past (the latter are identical with the imperfect of 'be'). In Murq̇silinskij (1980) example (17) is given as the formal equivalent of the colloquial (14). If we examine the first part of example (16), cited below as (18), it appears that screeve 6 is a type of scene setter providing the background for narrative-advancing screeve 7:

- (17) Ärk̇nṡakṡsa mašinarṫsu baq̇sašiwrijn buwnu, cila čumal qus tajla q̇sadurkṡsar. (Murq̇silinskij 1980:117)

Due to the absence of the necessary cars, the goods have not been sent in time.

- (18) Graždan dāẇwilul čumal ... ukunṡsa iš x~uṡsar. ... partizannan maqunmaj x~un bahṡsar. Partizannal ḣukmu buwṡsar arxnu zunṫawunmaj han. Amma k̇alaminnal gajnnal qiriw lajan q̇ast durṡsar. Partizannan cala q̇ulpatirṫaṧsal, rizq̇iluṧsal zunṫavun han bahlaj biwkṡsar. Baẇtun mašwara bullaliṡsa čumal, iwzun ca žahliṡsa partizannal uwkuna: ... — k̇alami na ṧalluṡsa q̇ini bačan banna ... — Wil maq žun k̇ulṡsar, —kunu, partizantal bačin ḣadur qana biv̇kuna. Cinjaw lawguna, žahliṡsa partizanma gik̇uwa liwčuna. (Murq̇silinskij 1980:22)

During the Civil War ... such an event happened. ... the Partisans had to pull back. The Partisans decided to go into the mountains. But the Whites intended to pursue them. The Partisans had to go into the mountains with all their families and cattle. During the council meeting a young Partisan stood up and said: ... —I will hold off the Whites all day. ... —Your word is known to us, — saying the partisans began to get ready to go. Everybody left, the young partisan stayed there. (Murq̇silinskij 1980:22)

Screeve 8 is illustrated by examples (19) as well as in example (15) cited again here as (20):

- (19) Ṗsu iwkṡsa čumal na ačwa tuman xarž buwṡsija. ... Ṫsul uṡsil timur tajlaṡsar. Ṗsu iwkṡsa čumal, munal ačwa tuman xarž buwṡsija. Amma žu iq̇ral q̇sadurṡsija, mi — k̇i bačin ärk̇nṡsar... (Xalilov1976:204)

At the time farther died I spent 10 tumans. ... What my brother says is true. At the time father died he spent 10 tumans. But we did not make an agreement that it was necessary to divide it in half.

- (20) Čak bullaj una, t̥sun čalan biwkuna mizirtal čira čapal bullalis̥a k̥ač̥si. Allahnal q̥at̥sa čapur x~un q̥abitan, na ta liqan ban lawg̥s̥ijaw. (Xalilov 1976:204)

While I was praying, I saw a dog befouling the wall of the mosque. Not to let Allah's house be defiled, I went out to make it run away.

Although example (19) could be taken as illustrating a type of pluperfect or distant past, such an interpretation seems forced for example (20), where *lawg̥s̥ijaw* appears to be functioning according to Burčuladze's and Murkelinskij's descriptions, i.e., as the assertive equivalent of the aorist.

It is clear on the basis of function and form that both screeve 8 and screeve 6 are assertive. The question is, how do they relate to one another and to the aorist? In example (17) *taĵla q̥adurk̥sar* describes the result of a lack of vehicles while in (18) *x~us̥ar* and the following forms in that screeve describe the state of affairs relating to and resulting in the main action of the story. In (19) and (20), on the other hand, *lawg̥s̥ijaw*, *xarž buws̥ija*, and *q̥adurs̥ija* describe actions completed in the past without referring to their results in the present or using them to set a scene. In the case of (20) the event described by *lawg̥s̥ijaw* follows on that described by *čalan biwkuna*, whereas in (17) *taĵla q̥adurk̥sar* is a resultative equivalent of *taĵla duk̥san q̥ax~una* in (14). Consider also the fact that the various perfect screeves in Lak are called *čana larg̥sa* 'present past' and that screeve 6 has a present-derived desinence while screeve 8 has a past tense-derived desinence.

In Lak, the temporal relationships of anteriority described by the English term **pluperfect** are rendered by a complex set of non-finite forms, while the other screeves of the Lak perfect — the transitive (screeve 3), the archaic (screeve 4), and the unmarked (screeve 5) — are not marked for the assertive feature carried by the *-s̥a-* in screeve 6.⁹ On the basis of all the foregoing, I propose the terms **assertive aorist** and **assertive perfect** for screeves 8 and 6, respectively.

To summarize: I propose the following terminology for a consistent description of the synthetic past screeves of Lak:

- 1=imperfect
- 2=assertive imperfect
- 3=transitive perfect
- 4=archaic perfect
- 5=unmarked perfect
- 6=assertive perfect
- 7=aorist
- 8=assertive aorist

TABLE ONE
LAK PAST PARADIGMS: RUSSIAN & LAK TERMINOLOGY

FORM	Burč79	Žirk55	Xajd66	Xajd75	Murk71	Murq80	Uslar90
1 čičajwa[w]	prošedšee nesoveršennoe (imperfectum) [dlitel'noe]	prošedšee dlitel'noe/ povtornoe	prošedšee nesoveršennoe	imperfekt	prežde- prošedšee dlitel'noe (nezakončennoe) /Imperfekt	--	prošedšee
2 čičajsija[w]	" utverditel'noe	prošedšee utverditel'noe	prošedšee	imperfekt nesoveršennoe	"	-- utverditel'noe	prošedšee otdalennoe
3 čičaw čičardu	prošedšee soveršennoe (perfectum) kategoričeskoe	prošedšee kategoričeskoe	prošedšee soveršennoe [perfektnoe]	perfekt	nastojščee (zakončennoe) rezul'tativnoe	čana largsa	prošedšee soveršennoe
4 lawgra lawgru [lawgri]	prošedšee arxaičnoe (perfectum)	prošedšee arxaičnoe	prošedšee soveršennoe [perfektnoe]	perfekt	nastojščee (zakončennoe) rezul'tativnoe	čana largsa	prošedšee soveršennoe
5 čiwčunna čiwčunnu čiwčunni	aorist (perfectum)	prošedšee aoristnoe	nedavno- prošedšee	perfekt	nastojščee (zakončennoe) rezul'tativnoe	čana largsa	aorist

FORM	Burč79	Žirk55	Xajd66	Xajd75	Murk71	Murq80	Uslar90
6 čiwčussara čiwčussaru čiwčussar	--	prošedšee utverditel'noe	davnoprošedšee soveršennoe	--	prošedšee utverditel'noe (zakončennoe)	čəānira largsa	prošedšee soveršennoe podtverditel'noe
7 čiwčuna[w]	davnoprošedšee (plusquam- perfectum)	prošedšee	prošedšee soveršennoe	--	preždeprošedšee (zakončennoe)	x~zičra largsa	--
8 čiwčusəija[w]	davnoprošedšee utverditel'noe [kategoričnost']	davnoprošedšee utverditel'noe	prošedšee soveršennoe	--	preždeprošedšee (zakončennoe)	x~zičra largsa	--

TABLE TWO
LAK PAST PARADIGMS: ENGLISH TRANSLATIONS

FORM	Burč79	Žirk55	Xajd66	Xajd75	Murk71	Murq80	Uslar90
1 čičajwa[w]	past imperfective (imperfect) [durative]	past durative/ iterative	past imperfective	imperfect	pluperfect durative (noncompletive) /Imperfect	--	past
2 čičajsəija[w]	" assertive	past assertive	past imperfective	imperfect	" assertive	--	past assertive distanced
3 čičaw čičardu	past perfective (perfect) categorical	past categorical	past perfective (perfect)	perfect	present (completive) resultative	present past	past perfective

FORM	Burč79	Žirk55	Xajd66	Xajd75	Murk71	Murq80	Uslar90
4 lawgra lawgru [lawgri]	past archaic (perfect)	past archaic	past perfective (perfect)	perfect	present (completive) resultative	present past	past perfective
5 čiwčunna čiwčunnu čiwčunni	aorist (perfect)	past aorist	nondistant past	perfect	present (completive) resultative	present past	aorist
6 čiwčusɤara čiwčusɤaru čiwčusɤar	--	past assertive	pluperfect perfective	--	past assertive (completive)	distant past	past perfective assertive
7 čiwčuna[w]	pluperfect (pluperfect)	past	past perfective	--	pluperfect (completive)	pre- past	--
8 čiwčussija[w]	pluperfect assertive [categorical]	pluperfect assertive	past perfective	--	pluperfect (completive)	pre- past	--

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NOTES

¹I wish to thank the Central Library of the Georgian Academy of Sciences, which has sent me many of the materials that helped me in this work. I am also indebted to the University of North Carolina Research Council, which funded some of my original research on Lak. Finally, I wish to thank my Lak informant, Ms. Eleonora Magomedova.

²Unfortunately, I received Burčulaje 1987, too late for inclusion in this article. It will no doubt provide many valuable insights for future investigation.

³I shall concentrate on the unmarked aspect (type *čičin* 'to write') since the marked aspects (progressive and iterative: types *čičlan*, *čičāwan*, respectively), lack the past stem and synthetic screeves based on the past stem in the unmarked aspect are replaced by analytic pasts in the marked aspects.

⁴*Prošedšee* can be translated as 'past' or 'preterite,' and I have chosen 'past' as the more convenient and flexible of the two. Both *preždeprošedšee* and *davnaprošedšee* can be translated by 'pluperfect,' which I have done, but it should be borne in mind that the literal translations are 'pre-past' and 'distant-past,' respectively, which are meanings that some of the scholars take literally (e.g., Burčuladze 1979). I have distinguished between *[ne]soveršennoe* and *[ne]zakončennoe* by using the standard translation '[im]perfective' for the former while translating the latter as '[non]completive.' These terms refer to essentially the same phenomena. The difference appears to be that Murkelinskij is emphasizing the fact that the Lak distinction is not to be taken as being identical with Russian superordinate aspect, which is described by the term[s] *[ne]soveršennoe* in Russian grammatical description. I have discussed my reasons for using the English term 'assertive' where Russian uses

podtverditel'noe or *utverditel'noe* in Friedman (To appear) and at the beginning of this article. I translated *kategoričeskoe* as 'categorical' for ease of comparison. *Dlitel'noe* 'durative' could also be translated as 'progressive,' but this latter term is better reserved for the marked superordinate aspect of the type *čičlan*. The use of 'iterative' for *povtorno* is standard. The terms *aoristnoe*, *rezul'tativnoe*, and *arxaičnoe*, etc., are transparent. This leaves only Uslar's *otdalennoe*, which I have translated literally as 'distanced.' In the case of the Lak terms, I have simply tried to be literal. The precise meanings of the words are the following: *largsa* 'past, gone,' *čana* 'present, now,' *čānira* 'long ago, a long time' (Russian *davno*) < *čāni* 'quickly, early,' *x-šičra* 'before, earlier.' For the remainder of the paper, I will use English terminology.

⁵The second person is limited to interrogatives, e.g., *Iwzraw* 'Hello' (lit. 'Have you arisen?') *Ssan baxaw huqa?* ... *Ina laws'sa bahlun baxaw.* (Xalilov 1976:214) 'What did you pay for the shirt? I paid what you bought it for.')

⁶Burčuladze (1979) gives English and Georgian equivalents for four screeves in an abstract of one of his Russian articles, but these do not materially affect the situation. The terms are *ačmqo mṭkicebiti* = present affirmative, *namqo usruli* = past indefinite (imperfectum), *ḡategoriuli pēpekṭi* = categorical perfect, and *aoristi* = aorist. A complete Georgian terminology is given in Burčulaje (1987), but as was mentioned in note 2 this was received too late for inclusion in this article.

⁷All examples from Uslar have been put in the orthography used in this paper and adjusted to reflect literary Lak spelling

⁸See note 5.

⁹The precise relationship of the archaic and transitive perfects screeve 6 is beyond the scope of the present article.

DANCING IN FRONT OF A MIRROR:
ORTHOGLOSSY AS A MEANS OF SALVATION FROM THE
'TRADUTTORE — TRADITTORE' DEVIATIONISM

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*'Peace will reign among men when
words will have the same meaning
for all.'* Confucius
Scripta volant, verba manent.

This study of the textual—and mental—translation process from a native ('first') into a 'second' mother tongue (acquired through acculturation) and vice-versa is meant to illustrate key aspects of the Soviet 'Linguistic Policy' toward minority languages.¹ It is based on the linguistic and sociolinguistic analysis of two official Kirghiz texts, but the author is thoroughly convinced that similar conclusions could be reached for almost any of the other Soviet minority languages.

The first text (I) is an article on literary criticism written directly in Kirghiz by a Russian-educated native speaker (Jumadylov 1970:42) and the second one (II), the translation into Kirghiz of a TASS press release initially written in Russian and published in *Sovet'tyk Kyrgyzstan*, 9 September 1983. These texts are given below in both Kirghiz and Russian versions, with a textual translation into English.

It is a well-known fact that a 'faithful' translation, *stricto sensu*, from language A into language B is feasible only inasmuch as both A and B have in common, on the basis of linguistic (genetic or typological) and/or of extralinguistic similarities a minimal set of common syntactic and referential (semantic/cultural) features. Thus, practically all the stylistic features, cultural references, and semantic 'winks' of an English novel can be translated into any other European language, including Hungarian and Finnish.

When these intra- and extralinguistic conditions are not met (as in translations of, say, Proust into Japanese, sacred or epic Third World texts into some European language or in the case of Bible translation), one should rather speak—whether we regret or welcome the ensuing 'respect' of the original—of adaptation and even of rewriting. What then migrates from one system to the other merely is what could be called 'the plot.' One can even say that the transfer process is successful despite the loss of a whole set of original stylistic features and semantic and cultural connotations

and in spite of the inclusion of new, more or less symmetrically equivalent features, typical only for the target language.

If 'adapting' is thus respecting as much as possible the author's will, i.e., providing the target interlocutor with faithful information and, to the extent that it is possible, an equivalent 'aura' of auxiliary signals, then this is the kind of situation we are entitled to expect upon switching from Russian to Kirghiz, or vice-versa. Sociolinguistically speaking, one can a priori expect that centuries of separate evolution inside separate cultural orbits have left in both languages more divergent semantic/cultural reference features than convergent ones, which, quite normally, result from the last 123 years of more and more intensive contacts. Linguistically speaking, it is a well-established fact that, at all levels and especially as far as syntax is concerned, Turkic and Slavic languages have completely inverted structures.

This means that S. Jumadylov's (original) text should be expected to have only a minimum of common, 'isomorphic' lexical, idiomatic, syntactic features and semantic/cultural references with its translation into Russian and, conversely, that no more or even less similarities should be found between the original TASS text and its translation into Kirghiz.

In reality, both texts under analysis reveal exactly the contrary to the extent that

(1) both pairs of texts show a mirror-like bilateral correspondence (all four of them coming under one semantic/stylistic, supra-ethnic scheme) so that all versions seem to have been originally **thought** in Russian (a phenomenon which could be described as 'one-way mental reference dependency').

(2) short passages of text I (in Kirghiz) could almost be understood by Russian speakers with only a minimal knowledge of Kirghiz, while, conversely, both Kirghiz texts are hardly understandable for native Kirghiz speakers with an insufficient knowledge of Russian.

Such bilateral invariability is all the more strange since, as every Russianist knows, Soviet translations from Western languages often take strange liberties with the original, mercilessly transformed so as it would 'sound' Russian and that pre-Pushkin authors, accused of 'mixing French and Nijni-Novgorodian' are no less ruthlessly lampooned.

Of course, such a phenomenon can be—and has been, repeatedly—explained away by the excessive, mechanical

'slavishness' of 'bad,' 'dogmatic' translators, indulging in 'bukvalizm' ('psittacism'). The problem, however, is that when native Kirghiz individuals complain about this (officials never do), they rarely implicate the spontaneous behavior of some low rank translator, but rather have in view an imported 'from above,' systematic policy. What they air then is a deep-seated indignation which involves much more than a mere, technical disagreement. Some even go as far as drawing a parallel between this typically Soviet phenomenon and such an archaic, 'feudal' type of language as Chagatay with its obsolete, macaronic mixture of Persian, Arabic and (a little) Uzbek. We can go safely beyond this point and suggest a comparison with texts of various African languages from the colonial and post-colonial period (Imart 1982:178 and Alexandre 1961:13-28) and, more generally, with creoles. The fact that we are dealing here with a special kind of learned and intentionally implanted creole—and not with a spontaneous and formal one—makes the problem only more acute.

Besides, discussions on such 'cursed issues' seem to be perennial: they are periodically put on the overt agenda, although they do not seem to be ever forgotten, even in more covert periods of time. To sum up, here is, for example, in the wake of the next-in-turn 'glasnost' campaign, Ch. Aitmatov's latest reactions to this problem (*Literaturnaja gazeta*, 13 August 1986):

"Let's take for example the development of national literary languages (...) What... process is going on? Suppose—loans: however natural, organic, opportune they may be, don't they stem, at times, from mental conservatism, mental laziness when mechanically and often out of flattery something is transferred from one language into another? I want to specify right away that, as anybody knows, Russian is a great, mighty tongue (...) but this does not entail that one must forget the internal laws of another national language and introduce into it (...) what one can avoid introducing. In such a matter, the very name of two local dailies published in Kirghiz is a quizzical thing. One is called 'Yssyk Köl Pravdasy' and the other one 'Naryn Pravdasy.' This outrages me deeply. What kind of people is this which, having a millenium of history behind itself, supposedly has not at its disposal in its own language such words as 'rightness,' 'truth,' 'justice'? (...) What kind of national culture is this, without its own basis? However, when one expresses such painful thoughts, there are people who immediately regard this as nationalism (...) When we theoretically surmise that (...) in some distant future, all languages will merge and there will be only one or two languages left in the world (...) we are hardly aware of the fact that the result will be a poorer world. Uniformity cannot ensure development (...) A people is immortal through its tongue (...) Each one

one of us has, toward his own people—who gave him the best of its treasures: its language—a filial duty: preserve its purity, multiply its wealth.”

The main interest of this blunt, passionate plea for a purer national tongue does not stem only from the reappearance, after decades of glaciation, of native claims very similar to those formulated in the 1920s. It lies in the fact that the apparently technical problem of Kirghiz/Russian translation is linked to broader issues and put back in a context which reveals its true dimensions.

We shall therefore proceed, in a most orthodox Marxist way, with a double analysis of the above mentioned texts—of their ‘basis’ (their internal linguistic features) and of their ‘super-structure’ (the extra-linguistic, socio-politico-ideological features thus developed).

(A) DEVELOPING THE LANGUAGE? Even if Ch. Aitmatov rightly insists on the fact that today’s Kirghiz are no longer illiterate, that the time of the “red and black blackboards” is gone since long and that “a new dimension is needed when one approaches the development of a national language,” it is an undisputable fact that such an almost exclusively oral language as Kirghiz, used until the 1920s solely within the framework of a pastoral society, needed not ‘enriching’ (all languages are ‘rich’ in their own way and province), but synchronization with, adaptation to, the new demands resulting from a much broader range of social functions. The peculiarity of the Soviet approach to this classical problem is that the official policy was aimed more at the *signifiant* than, as elsewhere, at the *signifié*.

As far as ‘surface phenomena’ are concerned, the **lexical** study of any pre-1917 Kirghiz text reveals (cf. Imart and Hu 1988)—for statements of similar length (around 700 words) a slow evolution from about 0.10% of foreign loanwords (in the *Manas* epic for example) to an average of 2% in texts written in the late 1920s and dealing with ‘modern’ matters. This last figure corresponds almost exactly to the one typical now in the 1980s, for journalistic texts written in Turkey Turkic²—a language which, like Kirghiz, has been for decades under the heavy lexical influence of European models.

In Kirghizia, even if we take into account the written language (which developed from circa 1890 down to the 1920s and allowed a non-negligible native intelligentsia to tackle practically all

modern problems—except narrowly technical, scientific ones—in a literary ‘medium’—half Kirghiz and half Kazakh—‘*ortok til*’ which was noticeably influenced by Kazan Tatar), the percentage of non-Turkic, including Russian, loanwords remains extremely low. Besides, it is worth noting that the vast majority of these early loans were of Iranian/Arabic origin, i.e., pertained to the same oriental cultural cluster as Turkic.

This state of affairs has in fact persisted up to now in writings dealing with practically all matters—except political/civic (in Russian: ‘*obščestvennye*’) questions. While a probe, taken from Ch. Aitmatov’s ‘First Teacher’ reveals a low 0.5% of non-Turkic lexical items, the general evolution in official ‘journalese’ is that suggested for neighboring Kazakh by a study published in 1961 (for 1000 words):

DATE	NO. OF RUSSIAN LOANWORDS
5 May 1924	14
5 May 1930	68
1 October 1940	230 (Baysev 1961:258) ³

In the two texts under consideration here one can find:

TEXT	ORIENTAL LOANWORDS	%		(COUNTING REPETITIONS OF THE SAME LEXICAL ITEM)	%
I.	16	2.13	26	3.46	II. 9 1.32 16 2.20
TEXT	RUSSIAN LOANWORDS	%		(COUNTING REPETITIONS OF THE SAME LEXICAL ITEM)	%
I.	44	5.86	71	9.46	II. 31 4.55 63 9.26

It must be clear, however, that all Arabic loanwords have been fully integrated into Kirghiz for almost two centuries, that they are not felt as alien and have been adapted to the ethnic phonological pattern in such a way as to make their extra-Turkic origin detectable only to the philologist: *ølkø*, *maalymat*, *økmøt*, *okuja*, *syøt*, door, *dyjnø*.

Russian loanwords, on the contrary, are neither orthographically nor phonologically adapted (*rol’*, *stil’*, etc.). A majority of them (adjectives marked—as it is compulsory in Russian by a special suffix: *-yj*, *-skij*) are mechanically adapted here in /*Lik*/ or /*LUU*/ so that this often unnecessary suffixation also implies a morphological loan. They are slightly more numerous in a text

directly written in Kirghiz by a native Kirghiz speaker than in a translation in which the original—especially, technical—vocabulary could be expected to have been kept. A hefty half of them falls directly under the same category of utterly useless loans as the *pravda* Aitmatov had in view: it is hard to believe that Kirghiz has no word for Russian *oxotnik*, *poèzija*, *tradicija*, *forma*, *obraz*, *manera*, *ritm*, *uezd*, *čislo* and even *samolet*, *prezident*.

Last but not least, these loanwords constitute in fact the semantic framework of each text without which it could not have been written. This means that even the already high percentage of loanwords indicated above gives an inaccurate—merely quantitative—view of their linguistic function and sociolinguistic impact. What is at stake is not only a matter of statistical reckoning: in shorter texts or excerpts with fewer repetitions of the same words, this percentage can reach 20, 25% or more (cf. Text I, lines 33-35; Text II, lines 126-131) and such figures correspond faithfully to the visual/auditory impression produced on the reader/listener.

The phenomenon detected here goes even far beyond the well-known propensity for acculturated neophytes or denationalized natives to lard their own speech with as many quotations as possible from some prestigious source in order to show how well assimilated they are. The above 'Kirgrussian' texts are not the functional equivalent of 'franglais' or of intensively arabicized Persian, etc. The ostracized oriental lexical layer has not been merely replaced by another, more up-to-date and simply thicker Russian layer.

In fact, we are **not** witnessing here a pure 'loan' phenomenon, a transplant process which, once performed, would leave the Kirghiz body as autonomous as before. This Kirghiz body is connected to a life-sustaining battery which, in the new conditions of intensive, multifaceted use and because it is supposedly too weak to function by itself, keeps it ticking. What flows through this (unilateral) link is not a fixed (even if huge) number of lexemes: the **whole** Russian lexical fund is thus put at the disposal of Kirghiz speakers who are invited to draw freely from it. This is the true meaning of the modish motto: "Russian as a second mother tongue." And the (possible—in any case, expected) result goes well beyond the usual and inevitable sliding from 'equal' toward 'subordinate' bilingualism, with the ultimate triumph of the 'best fitted.' It means a permanent loss of independence for a language which is

no longer considered a discrete, distinct unit either lexically, or phonologically (and soon, even morphologically or syntactically; cf. Dešeriev 1966)). The complete process may of course take a long time. But well before it is completed and the first mother tongue becomes extinct, a more subtle and by far deadlier process has already reached a peak: the semantic/cultural reference set of the language, its deep structure system at the level of the 'signifié' has been drastically altered.

Such 'deep structure' phenomena are less easy to detect. They do not 'grate on the ears.' They often wear national dress and, after a short period of time, they can go almost unnoticed. But, like viruses, they tend to transform the very DNA chain of the language, replacing each segment of it with a clone of their own making.

Lexical and, above all, idiomatic calques are phenomena bordering on both linguistics and sociolinguistics. They do bring into play mostly national 'signifiants,' but these enter the service of an alien 'signifié.' When they are detected, like a watermark, in a translation from a foreign language, they can be analyzed as a mere lapse of vigilance, or as a flirtatious wink from the translator. But when they appear in—more exactly, when they are instilled, driven into—a native text written by a native speaker as the favorite and de facto compulsory means of completing a task already begun through massive lexical loans, then they reveal what the latter's mind—that of a mutant—happens now to be made of.

In Text I we find them at every step:

čygarmačylyk = proizvedenie; čeberčilik = masterstvo; kørkøm sōz čeberi = master xudožestvennogo slova; stildik ykma = stilevoj priem; stildik bōtønčølyktør ušundan kelip čygat = stilističeskie osobennosti vytekajut iz éтого; turmuštan tuulgan tema = tema, roždennaja žizn'ju; aldyga kojulgan mildet = zadača, postavlennaja pered...; øžünün predmetine ünülø kirüü = (glubokoe) proniknovenie v sobstvennyj predmet; turmuštuk kørünüštørü = žiznennye javlenija; kanatuu poëzijasy = krylataja poëzija; yrlarynyn novatorluk münøzgø èè boluusuna žetišken = udalos' ovladet' novatorstvom; zakonduu kørünüš = zakonnoe javlenie; bajandoo manera = manera povestvovaniya; rolun ojnogon = sygral rol'; bir faktynyn alaly = voz'mem takoj fakt; psixologijalyk žol menen açuu = raskrytie ... psixologičeskim putem; buga karabastan = nesmotrja na éto.

The same phenomenon, also detectable in Text II, indicates that it is freely reversible and points therefore to the existence in some Kirghiz minds of fixed, automatic, bilateral equivalences: *murda bildirilgendej* = *kak uže soobščalos'*; *odono buzup* = *grubo narušiv*;

samolettor abaga kətörülgön = byli podnjaty samolety; čøø kətöröldü = podnjali šumixu; øtkøn čislo menen = zadnim čislom; amerikalyk tarap = amerikanskaja storona; tijštüü kyzmattar = sootvetstvjuščie služby...

Kirghiz, as most Turkic languages, is exceptionally regular and the sole real difficulties one comes up against are due to its 'twisted' syntax and, above all, to its idiomatic turns of phrase. Here, if we forget for a while the national syntactic order (which has been globally respected), everything else is upside down: the main condition for understanding these texts is a good command of...Russian. This applies both to the foreigner and to any monolingual native Kirghiz speaker. Experience has shown that among Xinjiang Kirghiz only those with a rather good knowledge of Russian could fully understand such texts. Ch. Aitmatov's "Belyj paroxod" in Kirghiz is now at the disposal of Xinjiang Kirghiz who certainly read it effortlessly. But even if issues of 'Sovettyk Kyrgyzstan' were sold in Ak Suu, many of its articles would trigger the same perplexity as the 'Kyzyl Suu Gazeti' would in Frunze: conversely, texts without all these extra-national references and connotations—written in Xinjiang Kirghizstan or in the 1920-30s, before the Russian linguistic *Drang nach Osten*—sound equally strange and obsolete to contemporary Soviet Kirghiz.

Therefore, what we are now witnessing here is not a mere matter of lexical discrepancy and much less a problem of dialectal differences: it is a rift between two ways of thinking—and one which tends to split up a once united nation.

Calques of the foreign signifiant and especially of the foreign signifié achieve a psycholinguistic remodeling which is the first and more important step toward the merging—not of the languages (since these are doomed to oblivion through this very process), but of the mental framework, through the disappearance of a semantic/cultural reference system. Through such translations and such a new 'style,' the language becomes a means of IMPression, not of EXpression.

It implements a policy ultimately directed not so much at transforming the language but, more fundamentally, at transforming the locutor's mental behavior and most intimate thinking processes.

When systematized—through schools, state-controlled mass media, induced social conformity, etc.—to the point that we can witness in the USSR, such a policy falls into the province of

Orwellian Newspeak, i.e., performs, in the most literal sense of the word, a kind of permanent, automatized, self-powered brainwashing.

The problem then is not only to determine what kind of new socio-psychological superstructure such a policy is supposed to breed and from which implicit or explicit statized ideological matrix it stems, but also to determine whether both these are actually as modern and innovative as usually thought.

(B) REMODELING THE LOCUTOR. The 'traduttore-tradittore' danger, now so commonly accepted as normal and even considered to be the ineluctable price to be paid so as to respect the Other's specificity, is, in translation matters, the equivalent of risk in free enterprise. In an ideologically planned society, it becomes an affair of State because the slightest deviation from the 'line' threatens the long-term success and the purity of the whole enterprise.

The ideologist's main concern in broaching translation problems is thus indirect, by far not purely linguistic, and results from a series of much broader choices made 'upstream' about the national issue as a whole. The 'line' chosen then does involve linguistic consequences, but its motivations are rather to be sought in the Prehistory of linguistics, at a time when the Word had been made—better: was—Flesh, i.e., when the signifiant and the signifié were still as undistinguished and undistinguishable as a non-fisible nucleus and when one exemplary German speaker could become indignant upon discovering that a horse was no longer a *Pferd* in Italy. Then, peoples slaughtered peoples which were guilty of blasphemy for having nicknamed God '*Bog*,' as if He were some wooden idol, instead of honoring Him with His sole proper title: *Deus, Theos*.

Post-Saussurian linguistics starts in Russia during the 'reactionary,' formalist *Dekadenstvo* of the 1910s, but is ousted from Russia in 1917. It was to be reintroduced only after Stalin's death and only in such theoretical fields where it did not clash with the demands of State Logocracy.

Indeed, the sole rationale susceptible of explaining the double process of an overt (lexical) Russification and a covert (idiomatic) Russianization (Imart 1982:185) which are not meant to actually russify the minority languages and minds, but to cleanse them from all past, alien, impure influences, standardize them, and make them ideologically aseptic, was the fear of semantic

deviationism. Misleading connotations, unrighteous renderings, the possibility of mentally lapsing into a foreign, despised, unclean, and above all uncontrolled civilization were the dangers to be averted.

But at the same time, the mental 'bases' and their linguistic/cultural superstructures on the spot still were too strong in the short term, at the beginning of the revolutionary process, and too motley to be tolerated in the long term. Supra-ethnic Socialism, in spite of its natural inclination towards homogenization and its fundamental abhorrence of ethnic particularism ('ghettos') had to make concessions—'*ustupki*'—to a bleak reality. If its message ever were to be heard and understood outside Russia proper, and especially in the Oriental world (where conditions seemed decidedly more propitious than in 1918 Berlin or Budapest), it had to be expressed in the local tongues.

These were, however, 'underdeveloped.' More than that: they were burdened with concepts which conveyed the abomination of the Outer Darkness. Should these peoples, intoxicated by 'feudalism,' Islamic fanaticism, nationalism, etc. be allowed to call a soviet a *šura*, they would assimilate it to an assembly of village elders. Didn't they already make a ridiculous 'fire bullock cart' (*ot araba*) out of the symbol of Progress, the locomotive?

So, native languages must be 'helped,' saved from themselves, put in the care of a guardian: the Great Russian tongue. Besides, it is postulated in the same breath that their development must be scientifically planned so as to work toward the building of the New Communist Man. The latter can be temporarily allowed to remain 'national in form,' but only inasmuch as he is made 'socialist in content.'

Since Esperanto is but a Judeo-Menshevik plot, the best—because well tried—means to convey the new message in all its original, Leninist purity remains, after all, Russian: it is decidedly easier to check and adapt. It is thus supposed to lose its previous imperial and official character and to acquire that of ideological orthodoxy. No more offensive "Speak Christian!" in partibus, but an imperative "Speak Right!."

Eliminating, first in sensitive matters and then everywhere, the miasmas of the past that filled the natives' minds and replacing them with non-malignant, right-thinking concepts expressed in an approved way may take a long time, but Moscow is now the

Lighthouse of the East—a Fourth Rome, and a fifth there cannot be.

This policy of 'language development,' no matter how innovative it may have seemed, especially in comparison with the Tsarist practice and with other programs of linguistic development devised, at the same time, in Hungary, Finland, Estonia, Turkey, China, etc., was, in fact, a remake (with modern means and efficiency) of century-old practices.

Many previous ideological state systems had already understood that Orthoglossy was a must in a Logocracy. It has already been shown how Lenin was deeply indebted to N.I.II'minski in matters of national linguistic policy (Kreindler 1979:22, Imart 1982:96). But one must look farther upstream of this landmark.

Historians of the Church (e.g., Mohrmann 1957:11-36)—although the issue at stake is typical for Islam as well and has left similar marks on all imperial, multinational structures—have long opposed the multilingualistic tradition of Eastern churches to the dogma defended in Rome (and officially abandoned only in 1893) of the Three Sacred Languages. A closer study of the Byzantine practices and motivations reveals however nothing similar to our modern concern for ethnic specificity and authenticity (as expressed for example by E.A.Nida's views on Bible translation (Nida 1964) or akin to the 'nationalistic' philosophy of language planning in post-Versailles Central Europe and today's Third World (cf. Fishman 1968 and *Language Reform* 1983).

Cyril and Methodius did not go to Moravia to study local Slavic *per se*, enhance through it Moravian self-consciousness and preserve the Moravian way of thinking. First of all, they wanted to avoid counter-productive attitudes such as those which had ruined Theophylact's mission in Ohrid. In such a strategic perspective, they could quote St Paul (I. Cor. 14.5-11) in order to mollify the anti-barbarian, 'fundamentalist' lobby in Constantinople. But they never forgot that they were representatives of Rum, teachers on an imperial and ecumenical mission. They do not come as 'coopérants,' VSO members, or Peace Corps volunteers to help a local culture stand on its feet: their duty is to wield ideological control and State authority. They have been chosen not only for their technical—linguistic—skills, but as experts in 'psychological warfare.' As such, they do not 'trans-late,' in the modern sense of the word, the Sacred Writ, but merely transpose it, changing as little as possible its 'form' and always vigilantly—*bditel'no!*—

making certain not to alter its 'content.' To this end, they introduce Greek loanwords, wander no further away from the original than the nearest semantic or idiomatic calque, sticking to 'literality,' always preferring the 'right' rendering to the one which would have sounded natural, spontaneous—and often simply understandable—in the native tongue and in tune with the native cast of mind. The prevailing philosophy here is that the Locutor (and a fortiori the Barbarian locutor) must adapt to the Text—and not the other way round. Here too, evangelization is carried out through formal Hellenization simply because hellenization is both Orthodoxy and Civilization. But the obvious aim is first and foremost to conquer souls, minds, incidentally to 'civilize' them and least of all to provide Barbarians with a tool for self-expression—which would mean self-damnation. In case this lofty aim would be misunderstood, the missionaries translated also the Nomocanon, i.e., the state code.

If, in another Byzantine protectorate—the Bulgarian khaganate—the results were not (as today in many non-Russian republics of the USSR) those which had been planned, it was because of 'local deviationism,' not because the Byzantine multilinguistic approach differed, in its motivations and aims, from the monolingualistic Roman one. Imposing Latin everywhere was also demanding that the Locutor adapt to the Text. And as long as the experiment was not derailed by another, opposite, 'nationalistic' ideology (or, rather, instinctive reaction), it gave in both Churches identical, because identically programmed, results: a social layer which had thoroughly assimilated the new way of thinking and could, spontaneously, either cast its 'own' thoughts into the new mold specially built for them (as Jumadylov does in Text I), or find ready-made equivalents when switching from one ritual code to the other (as in Text II). As long as there is only one 'right' hypostasis of the *'Istina'*, the number and the form of the mirrors used to reflect it cannot alter its image.

*

In conclusion, one is struck, upon reflecting on the language—and metalanguage—of these two symbolical texts, by the contrast between the luxuriance of an exceptionally multifaceted, statized apparatus and the stereotyped, 'monolithic' local 'icons' resulting from it. Through a policy allegedly poles apart from that of past colonial empires, the result, officially condemned but structurally sought after, is the same: denationalization, standardization. The

only, but important difference separating these two approaches is that between inevitability (following upon lack of concern, technical incapacity, sincere—and naive—superiority complex, etc.) and voluntarism.

Of course, the Russianist can note in passim that the result of such a policy within his own province does not differ fundamentally from the one exposed by the Turcologist. The main characteristic of an ideological 'langue de bois'⁴ is its absolute 'internationalism.' But the Soviet speaker of Russian (as, earlier, the Byzantine speaker of Greek), when switching from the language of the market place to the ritual jargon, or from Tolstoy to *Izvestija*, still remains within his own mental galaxy, descending simply to a lower orbit. The Kirghiz reader, on the contrary, upon switching from Aitmatov to local journalese, is thrown out of his mental world into a depth of space where everything speaks of alienation and smacks of parody.

This linguistic situation developed in non-Russian speaking areas during the 1930s is in direct relation with the selective genocide of the local élites performed at that time.⁵ Nothing has changed much since then⁶ and the on-going *perestrojka* cannot change a built-in feature. The late discovery—in the 1960s—of these phenomena has now lost much of the exciting newness which during the last twenty years accounted for the publication of so many articles and books on 'Soviet linguistic policy': a jammed situation brings about commentaries unavoidably as repetitive as the reality itself.

But those, on the spot, who, day after day, bear the brunt of this policy, jump at any opportunity to air their feelings of indignation at being considered children under guardianship and deviants. The problem, however, is that the more they explain in good faith their need and desire for a special treatment, the more they argue that they have "about a dozen of synonyms for 'truth,'" the more wicked they appear to be.

They do succeed, nevertheless, in bringing to the fore the great flaw of this 'Soviet Nationality Policy': the opposition between the ritual tongue (forcefully made socialist in content and—vaguely—national in form), and the living language, national in content and—vaguely—socialist in form for which they yearn is global, structural, unbridgeable and imprescriptible. Aitmatov knows it and, like many others, simply tries to gain just a little more elbow room and another postponement of the grand design.

In translation, as in all ethnic matters, the true opposition is not between a strategy of control through formal diversity (or pseudo-federalism) and a strategy of control through formal uniformity (*Ein Reich, ein Volk, eine Partei*). It is between ethnic blindness, archaic refusal of Otherness in the name of some orthodoxy or out of contempt for 'geschichtlose Nationettes' (in Engels' words) and dispassionate, clear-headed, 'ecological' relativism, as expressed through respect for ethnic uniqueness.

APPENDIX

TEXT I. АКЫНДЫН ЧЫГАРМАЧЫЛЫК ИЗДЕНҮҮЛӨРҮ

Ар бир көркөм сөз чебери турмуштук ар кыл көрүнүштө сүрөттөөдө өзүнө жаккан жана өзү каалаган стилдик ыкманы колдоно тургандыгы белгилүү. Ар бир жазуучунун бири-бириникине окшобогон стилдик бөтөнчөлүктөрү да мына ушундан улам келип чыгат. Демек, ар кандай адабий чыгарманын идеялык-көркөмдүгү жазуучунун стилдик өзгөчөлүгү менен аныкталууга тийиш. Бирок стиль өзгөрбөй токтоп туруучу нерсе эмес. Ал жазуучу адеп колуна калем кармаганда эле өзүнөн-өзү пайда боло да калбайт. Стиль жазуучунун ойлонуу ыгына, чеберчилигине карай өсүп, өнүгүп отурат.

Өзүнчө стилге ээ болууга умтулган жазуучу дайыма изденүүдө болот. Изденүү дегенибиз—бул кокустук көрүнүш эмес. Изденүү—доордун талабына баш иет, б.а. турмуштан туулган тема ошол темага жооп бере турган ыкманы табууга жазуучуну аргасыз кылат. Ошондой болсо да чыгармачылык изденүүнүн багыты, алдыга коюлган милдетти конкреттүү, практикалык жол менен чегүү—жазуучунун терең ойлонуусун, өзүнүн предметине үңүлө кирүүнү, ачы кадаланып изилдөөнү жана үйрөнүүнү талап кылат.

Азыр күндөгү кыргыз поэзиясы адамдын жан сезимин, келечекке карата болгон көз карашын мурдагыдан да ачыгыраак чагылдыра баштады. Ошол эле учурда поэзия жарындагы чыгармаларда жаңыны изденүү, турмуштук ар кыл көрүнүштөрдү жаңыча сүрөттөө кеңири орун алууда. Бирок изденүүнүн гана үстүндө болуп, өткөндөгүнүн бай тажрыйбаларын этибарга албай коюуга да жарабайт. Анткени өткөн традицияларга таянуу, аларды жаңы табылгалар менен айкалыштыра билүү жазуучунун чыгармачылык өсүү жолундагы эң сонун негиз болуп саналат. Буга кыргыздын таланттуу акыны маркум Алыкул Осмоновдун өмүрүнүн акыркы жылдарындагы канаттуу поэзиясы ачык далил боло алат.

Алыкул дайыма изденүүчү, тынымсыз эмгектенүүчү акын эле. Ага дүйнөлүк жана орус классиктеринин тийгизген таасири зор болгон. Ошол дүйнөлүк жана орус классиктеринин адабий тажрыйбаларын чыгармачылык менен өздөштүрүүсүнүн натыйжасында А. Осмонов өзүнчө поэтикалык жаңы формаларды тапкан. Акын кыргыз поэзиясындагы традициялык ыр түзүлүш системасын жаңы форма

менен айкалыштыра отуруп, ырлардынын новаторлук мүнөзгө ээ болуусуна жетишкен. Мына ушул себептен Алыкул Осмонов жалаң гана окуучулардын эмес, жаш авторлордун да сүйүктүү акыны болду. Көп убактарда колуна жаңыдан калем кармай баштаган жаштар Алыкулду туурап жазышат. Алыкулду туурап, анын стилдик ыкмаларын чыгармачылык эргүү менен пайдаланууга аракет кылып жүргөн акындарыбыздын бири—дал ушул Сүйүнбай Эралиев. Эгерде аны А.Твардовскийдин мүнөз түзүү чеберчилиги, көркөм ойлонуу ыгы кызыктырса, А. Осмоновдун образдуу сүрөттөөсү, сөздөрүнүн экспрессивдүүлүгү жана «сөзгө сараң, ойго марттыгы» С. Эралиевди таң калтырат. «Алыкул менин дүйнөм эле. Мен анын ырларын азыр да зор сүйүү менен окуйм, ошондуктан Алыкулдун ырларынын бир далайын жатка да айта алам»—дейт, акын.

Көрүнүктүү жазуучулардын стилдик ыкмаларын пайдалануу чыгармачылык процесстеги закондуу көрүнүш. Бул жөнүндө дүйнөлүк адабиятта көптөгөн мисалдарды келтирүүгө болот. Мисалы, Байрон Пушкинге зор таасирин тийгизген. Ал Түштүктө сүргүндө жүрүп, Байрондун романтикалык стилин, чыгармаларындагы саясий эркиндикти сүйүтчүлүк идеясын ал гана эмес, анын мүнөздөрүнүн, сюжеттик ситуацияларынын көбүн пайдаланган. Ал эми Пушкиндин баяндоо манерасы Лев Толстойдун «Анна Каренинасын» жазууда чыгармачылык импульстун ролун ойногон. Же болбосо, мындай бир фактыны алалы: Некрасов Л. Толстойдун Кавказ аңгемелерин окуп чыгып, И. Тургеневге мындай деп жазган экен: «Бул очерктердин формасы дээрлик сеники, ал гана эмес, «Охотниктин запискасын» эске түшүргүчү сүйлөмдөр, салыштыруулар да бар. Ал эми офишер болсо, Щигровский уездиндеги аскер мундирчен Гамлеттин өзү». Адабий процессте мындай учурлар кездеше берет. Бирок бул—ошол жазуучунун чыгармачылык манерасын тууроо, же ошонун стилинде жазуу дегендикке жатпайт.

Канча кылган менен ар бир жазуучунун стили ар башка болот эмеспи. Стилдин бирдиги тематикалык жана идеялык жакындыкта, образ түзүү ыкмаларында, сюжет куруу чеберчилигинде, ритм менен рифмада, ырдын традициялык өлчөмүндө ж.б. болушу мүмкүн. Бирок, бирин экинчиси туурап жазышкан эки жазуучунуну техникалык чеберчиликтеринде стилдин бирдиги болууга мүмкүн эмес. Мисалы, С. Эралиевдин айрым лирикалары Алыкулдун чыгармаларына өтө жакын келип, тематикалык жактан Алыкулдун кээ бир ырлары менен үндөшүп турат. Ошондой эле С. Эралиевдин чыгармаларында каармандардын образын психологиялык жол менен ачууга кылган аракетинде, окуяны, тигил же бул көрүнүштү элестүү жана картиналуу кылып так сүрөттөөсүндө да стилдик окшоштуктардын айрым бир белгилеринин бар экендиги байкалат. Бирок, буга карабастан ал экөөнүн стили такыр эки башка.

С.Жымадылов

TEXT I. RESTORED "ORIGINAL" RUSSIAN VERSION
ТВОРЧЕСКИЕ ПОИСКИ ПОЭТА (АКЫНА)

Известно, что каждый мастер художественного слова в изображении различных жизненных явлений пользуется понравившимся ему, излюбленным стилевым приемом. Своеобразие непохожих один на другой стилей каждого писателя часто вытекает из этого. Следовательно, идейно-художественное содержание любого произведения должно определяться особенностями писательского стиля. Однако, стиль не может остановиться в своем развитии и оставаться на месте, не изменяясь. Он не может возникнуть сам по себе, сколько бы писатель не держал в руке перо.

Стиль развивается по замыслу писателя, по мере роста его мастерства. Писатель, стремящийся овладеть собственным стилем, всегда находится в поиске. Упомянутый поиск—это не случайное явление. Поиск подчиняется требованию века, т.е. тема, рожденная жизнью, понуждает писателя искать способы ответа на нее.

Несмотря на это, направление творческого поиска, решение поставленной задачи конкретным, практическим методом требует от писателя глубоких размышлений, глубокого проникновения в тему, ее ревностного изучения и освоения. Современная киргизская поэзия лучше, чем прежде начала отражать человеческие чувства, взгляды на будущее. Именно поэтому, поиски в произведении поэтического жанра, по-новому изображенные жизненные явления занимают более широкое место, чем прежде. Однако, занимаясь поиском нового, нельзя не обращать внимания на богатый опыт прошлого. Таким образом, опора на традиции прошлого, умение сочетать их с новыми открытиями считается прекрасной основой на пути творческого роста писателя. Ярким доказательством этого является крылатая поэзия последних лет жизни покойного талантливого киргизского поэта Алыкула Осмонова.

Алыкул был всегда ищущим, работающим без устали. Влияние на него мировой и русской классики было велико. В результате овладения творческим опытом мировых и русских классиков, Алыкул Осмонов нашел собственные новые поэтические формы. Киргизский акын, сочетая систему традиционного стихосложения в своей поэзии с новыми формами пришел к новаторству в своих стихах.

По этой причине А. Осмонов стал любимым поэтом не только читателей, но и молодых авторов. Долгое время молодежь, впервые взявшая в руки перо, писала подражая Алыкулу. Подражая Алыкулу, один из таких поэтов, а именно Суйунбай Эралиев, старается использовать с творческим вдохновением его стилевые приемы. Если его привлекает в Твардовском мастерство создания характеров, образность мышления, то образные выражения А. Осмонова, экспрессивность его слова, его «скупость на слова и щедрость на мысль» поражают С. Эралиева. «Алыкул мое счастье. Я и сейчас с огромной любовью читаю его стихи, поэтому многие его стихи могу прочесть наизусть»—говорит поэт. Использование стилевых приемов известных писателей в творческом процессе—законное явление. По

этому поводу можно привести много примеров из мировой литературы. Например, Байрон сильно повлиял на Пушкина.

Находясь на юге в ссылке, он использовал не только романтический стиль Байрона, идею любви к политической свободе в его произведениях, но и его характеры, его сложные ситуации. А затем манера повествования Пушкина сыграла роль творческого импульса при создании Л. Толстым «Анны Карениной».

Или возьмем такой факт: Некрасов, прочитав «Кавказские рассказы» Л. Толстого, написал Тургеневу так: «Форма этого очерка почти твоя, но не только это—встречаются такие предложения и сравнения, которые напоминают «Записки охотника». А что касается офицера, то это сам Гамлет Щигровского уезда в военном мундире».

В литературном процессе такие случаи могут встретиться. Однако это не считается подражанием творческой манере данного писателя или писанию в его стиле. Так или иначе у каждого писателя свой характерный стиль. Единство стилей возможно при тематической и идейной близости приемов создания образа, мастерства построения сюжета, ритма и рифмы, традиционного размера стихов, и т.п. Но невозможно единство стиля в техническом мастерстве двух писателей, один из которых следует другому. Например, отдельные стихотворения С. Эралиева очень приближаются к произведениям Алыкула в тематическом отношении, перекликаются с некоторыми стихами Алыкула. Также, в произведениях С. Эралиева наблюдается наличие отдельных следов схожести в попытке психологического раскрытия образа героев, событий, в точном, живом и образном отображении того или иного явления. Однако, несмотря на это, стиль этих двух поэтов совершенно различный.

TRANSLATION TEXT I. THE POET'S CREATIVE SEARCH

It is well known that each expert in literature in depicting the various aspects of life resorts to the stylistic means which he likes and which suit him best. The stylistic peculiarities of each writer, distinguishing each one from all others, most often stem precisely from that. That is to say that the ideological-artistic value of each type of work must be determined according to the stylistic peculiarities of the writer. But style is not something that remains unchanged and static. It does not reveal itself spontaneously simply because the writer takes up his pen. It develops itself, evolves in accordance with the writer's craftsmanship and way of thinking.

The writer who strives to control his own style is always searching. What we call 'search' is not a random phenomenon. This search is subjected to the demands of the century, which is to say that the theme procreated by life forces the writer to find an appropriate way to satisfy the demands of this very theme. However, the direction of the creative search, the practical solution to the commitment thus made, demand from the writer a deep reflexion, an osmosis with his theme, the cautious analysis, study and assimilation of it.

Contemporary Kirghiz poetry already began to reflect more precisely than earlier man's intimate feelings and his views on the future. Nowadays, in those works which are within the province of the poetical genre, the search for novelty, for a new representation of the different aspects of life are very important. Nevertheless, precisely in the field of search, it would be unwise to neglect the rich experience of the past. In this way, one must consider the writer's skilfulness in learning from past traditions and interweaving them with new findings, an excellent basis on the way towards his creative development. A clear illustration of this is provided by the winged poetry of Alykul Osmon, the late Kirghiz talented poet, during the last years of his life.

Alykul was a poet always in search (of something new), who worked tirelessly. The influence exerted on him by worldwide and Russian literary classical authors is tremendous. The result of this intimate assimilation of the creative experience of the worldwide and Russian literary classical authors was that A. Osmonov found himself new poetical forms. The poet, welding the traditional in Kirghiz poetry metrical system with new forms, succeeded in mastering novelty in his poems. This is why Alykul Osmonov is not only the reader's, but also the young writers' favorite poet. For a long time, young people who were taking up their pen for the first time, imitated him. Imitating Alykul, one of our poets - more exactly Sijünbaj Eraliev - constantly takes advantage, with creative inspiration, of his stylistic methods. If he is attracted by A. Tvardovskii's skill at creating characters, by the imaginative strength of his thought, S. Eraliev is deeply struck by A. Osmonov's ability to depict in a picturesque way, by the expressiveness of his words, by his 'conciseness in words and munificence in thought.' He says: "Alykul is my world. I always read his poems with much love and this is why I can recite by heart a great number of Alykul's poems."

Resorting to stylistic techniques of well-known writers is a legitimate phenomenon in the creative process. On that subject one can quote numerous examples taken from world literature. For example, Byron exerted a great influence on Pushkin. While he was in exile in the South, Pushkin resorted not only to Byron's romantic style and to the idea of love for political freedom, which can be found in (the latter's) works, but also to his characters and many of his thematical situations. Later on, Pushkin's narrative style played a role of creative impulsion in the writing of Lev Tolstoy's 'Anna Karenina.' Again: let's take the following fact: Nekrassov, after reading L. Tolstoy's 'Caucasian Tales,' wrote to I. Turgenev: "The form of this novel practically is yours; more than that, there are comparisons, sentences which bring to mind the 'Hunter's Diary.' Let's take this officer: it is the very Hamlet from the Shchigrov district, in uniform."

Such examples can inevitably be found in the literary process. However, this is not to say writing in such and such writer's style or imitating his manner.

Be that as it may, each writer's style is different from all others. Stylistic unity is possible in the case of thematical and ideological similarity, in the technique of image building, in the skilfulness for elaborating one's theme, in rhythm and rime, in traditional poetical meter. But stylistic unity is impossible in the technical skill of two writers, one of which imitates the other. For example, some lyric poems by S. Eraliev come very close to Alykul's works and from the thematical point of view echo various poems by Alykul. In the same way, in S. Eraliev's works, one can note the presence of certain features of stylistic similarity in the exact, vivid and picturesque representation of such and such phenomenon or event, in the tendency to divulge by way of psychology the image of the heroes. And yet, in spite of this, the styles of these two poets are absolutely different. — S. Jumadylov.

TEXT II. ТАССТЫН БИЛДИРҮҮСҮ

Мурда билдирилгендей, ушул жылдын 31-августунан 1-сентябрга караган түнү кимге таандык экендиги белгисиз самолет Совет мамлекетинин чек арасын одоно бузуп жана Советтер Союзунун аба мейкендигине тереңдеп кирген. Чек араны бузган самолет белгиленген эл аралык трассада Советтер Союзунун территориясынын ичине 500 километрге чейин кирип келип, эки сааттан ашык убакыт Камчатка жарым аралынын үстүндө, Охот деңизинин районунда жана Сахалин аралынын үстүндө болгон.

Эл аралык эрежени бузуп, самолет аэронавигациялык жарыксыз учкан, советтик диспетчердик кызматтардын радиосигналына көңүл бурган эмес жана өзү мындай байланышты түзүүгө эч кандай аракет жасаган эмес.

Чек араны бузган белгисиз самолет СССРдин аба мейкиндигинде жүргөн учурда абадан кол салуудан коргоочу советтик самолеттор абага көтөрүлгөндүгү, алар жалпы колдонулуп жүргөн

сигналдардын жардамы аркылуу аны менен байланыш түзүүгө жана аны Советтер Союзунун территориясындагы жакынкы аэродромго чыгарууга нечен жолу аракеттенгендиги табигый иш. Бирок чек араны бузган самолет ушунун бардыгын этибарга алган эмес. Сахалин аралынын үстүндө ал учуп келе жаткан багыт боюнча советтик самолеттор жаркылдап көрүнүүчү снаряддар менен эскертип атууларды жүргүзгөн.

Ушундан көп өтпөй чек араны бузган самолет советтик аба мейкиндигинин чегинен чыгып. Япон деңизи тарабына учушун уланткан. Ал болжол менен он минута убакыт радиолокациялык каражаттардын байкоо зонасында болгон, ушундан кийин ага байкоо жүргүзүү үзүлгөн.

Эми АКШда жана кээ бир башка өлкөлөрдө Нью-Йорктон Сеулга учуп келе жаткан Түштүк Кореянын самолетунун жоголушунун айланасында чуу көтөрүлдү. Бул жөнүндөгү биринчи билдирүүдө эле АКШнын Борбордук чалгындоо башкармасына шылташкандыгы өзүнө көңүл бурат. Кошмо Штаттардан чыгып жаткан андан кийинки маалыматтар учуунун маршруту жана мүнөзү кокусунан болбогон деп эсептөөгө улам көп негиз берип жатат. Азыр, өкөн число менен америкалык тарап бул самолеттун советтик аба мейкиндигин бузгандыгынын фактысын официалдуу гана моюнуна албай, ошондой эле Американын тийиштүү кызматтары ал учкан мезгилдин ичинде анын учушуна ең кунт коюп көз салып тургандыгы көрүнүп олтурган маалыматтарды келтиргендиги мүнөздүү.

Эгерде сөз тынымсыз байкоо жүргүзүлгөн граждандык самолеттун демейдеги учушу жөнүндө болсо, анда эмне үчүн америкалык тараптан СССРдин аба мейкиндигин одоно бузууну токтотуу жана самолетту эл аралык трассага кайтаруу боюнча эч кандай чаралар көрүлгөн эмес?— деген суроо туулат.

Эми СССРге карата ар кандай түрдөгү ыппас ушакка барып жаткан Американын бийликтери эмне үчүн советтик тарап менен байланыш түзүүгө жана бул учуу жөнүндө зарыл маалыматтарды берүүгө аракеттенген эмес? Бул үчүн убакыт абдан жетиштүү болгондугуна карабастан мындай эч аракет жасалган эмес.

Американын самолетторунун Советтер Союзунун мамлекеттик чек араларын, анын ичинде Ыраакы Чыгыштагы чек арасын атайын бузуулары ушул эле эмес экендигин эске сала кетүү орундуу. Буга байланыштуу АКШнын өкмөтүнө нааразылыктар нечен жолу билдирилген.

Ушул фактылардын негизинде жогоруда көрсөтүлгөн самолеттун аба мейкиндигине кирип келишин күн мурунтан пландаштырылган акция катары гана баалоо керек. Граждандык самолетторго жамынып атайын чалгындоо максатын тоскоолсуз ишке ашырууга мүмкүн экендигине болжолдонгондугу ачык көрүнүп турат.

Ал гана тургай, бул провокацияны уюштургандар Советтер Союзун жаманатты кылууга, ага кастык сезимди таратууга, тынчтыкты сүйүүчү советтик саясатка көө жабууга аракеттенип, эл аралык

кырдаалды андан ары курчутууга атайын барышты деп айтууга негиз бар.

Бул жөнүндө ошол эле замат АКШнын президенти Рейгандын Советтер Союзунун адресине жасаган уятсыз, ушакчылык билдирүүсү айтып турат. Советтер Союзунун жетекчи чөйрөлөрүндө адамдардын курман болгондугуна байланыштуу кейигендигин жана ошону менен бирге атайын же кылмыштуу этибарга албоонун натыйжасында адамдардын өлүшүнө жол бергендерди, ал эми азыр болгон окуяларды кара санатай саясий максатта пайдаланууга аракеттенип жаткандарды чечкиндүү айыптагандыгын билдирүүгө ТАССка полномочие берилген.

ТЕХТ II. ЗАЯВЛЕНИЕ ТАСС

Как уже сообщалось, в ночь с 31 августа на 1 сентября с.г. самолет неуставленной принадлежности грубо нарушил советскую государственную границу и глубоко вторгся в воздушное пространство Советского Союза. Самолет-нарушитель отклонился от существующей международной трассы в сторону территории Советского Союза до 500 км и более двух часов находился над полуостровом Камчатка, районом Охотского моря и над островом Сахалин. В нарушение международных правил самолет летел без аэронавигационных огней, на радиосигналы советских диспетчерских служб не реагировал и сам никаких попыток установить такую связь не предпринимал.

Естественно, что во время нахождения неизвестного самолета-нарушителя в воздушном пространстве СССР были подняты советские самолеты ПВО, которые неоднократно пытались установить с ним контакты с помощью общепринятых сигналов и вывести его на ближайший аэродром на территории Советского Союза. Однако самолет-нарушитель все это игнорировал. Над островом Сахалин по курсу его движения советским самолетом были даны предупредительные выстрелы трассирующими снарядами.

Вскоре после этого самолет-нарушитель вышел за пределы советского воздушного пространства и продолжал полет в сторону Японского моря. Примерно десять минут он находился в зоне наблюдения радиолокационными средствами, после чего наблюдение за ним было потеряно.

Теперь в США и некоторых других странах поднята шумиха вокруг исчезновения южнокорейского самолета, совершавшего полет из Нью-Йорка в Сеул. Обращает на себя внимание то, что уже в первом сообщении об этом делалась ссылка на Центральное Разведывательное Управление США. Дальнейшие сведения, исходящие из Соединенных Штатов дают все больше оснований считать, что маршрут и характер полета не были случайными. Показательно, что сейчас, задним числом, американская сторона не только официально признает факт нарушения этим самолетом советского воздушного пространства, но и приводит данные, из

которых видно, что соответствующие американские службы самым внимательным образом следили за полетом на всем его протяжении.

Спрашивается, если речь шла об обычном полете гражданского самолета, за которым велось непрерывное наблюдение, то почему же с американской стороны не было предпринято никаких мер по прекращению грубого нарушения воздушного пространства СССР и возвращению самолета на международную трассу?

Почему американские власти, которые теперь прибегают к разного рода грязным инсинуациям в отношении СССР, не попытались установить связь с советской стороной и дать необходимые данные об этом полете? Ни того, ни другого сделано не было, хотя времени для этого было более чем достаточно.

Уместно напомнить, что преднамеренные нарушения американскими самолетами государственных границ Советского Союза, в том числе на Дальнем Востоке, далеко не единичны. По этому поводу правительству США неоднократно заявлялись протесты.

В свете этих фактов вторжение в воздушное пространство указанного самолета нельзя расценить иначе, как заранее спланированную акцию. Расчет делался, очевидно, на то, что под прикрытием гражданских самолетов можно беспрепятственно осуществлять специальные разведывательные цели. Более того, есть основания полагать, что те, кто организовывал эту провокацию, сознательно шли на дальнейшее обострение международной обстановки, стремясь опорочить Советский Союз, посеять чувство враждебности к нему, бросить тень на советскую миролюбивую политику.

Об этом говорит и беспардонное, клеветническое заявление по адресу Советского Союза, с которым тотчас же выступил президент США Рейган. ТАСС уполномочен заявить, что в руководящих кругах Советского Союза выражают сожаление в связи с человеческими жертвами и вместе с тем решительно осуждают тех, кто сознательно или в результате преступного пренебрежения допустил гибель людей, а теперь пытается использовать произошедшее в нечистоплотных политических целях.

TRANSLATION TEXT II. A PRESS RELEASE FROM TASS

As already indicated, during the night of August 31 to September 1 of this year, a plane of unknown origin blatantly violated the Soviet State border and intruded deeply into Soviet air space. The violating plane swerved up to 500 kms from the existing international course in the direction of the Soviet territory and for more than two hours flew above the Kamchatka peninsula, the sea of Okhotsk and the island of Sakhalin.

In violation on international rules, the plane was flying without navigation lights, did not react to the radiosignals of the Soviet control services and did not itself try to establish such a contact.

Naturally enough, while the unknown violating plane found itself inside Soviet air space, Soviet planes from the Air Border Defense were sent up, trying several times to contact it by means of the generally accepted signals and to lead it to the nearest airfield on Soviet territory. However, the violating plane ignored everything. Above the island of Sakhalin Soviet planes fired warning shots with tracer shells along its course.

A short time later, the violating plane left the limits of Soviet air space and continued its flight towards the sea of Japan. For about ten minutes it remained within the observation zone of our radar installations, after that contact with it was lost.

Now in the US and various other countries a loud fuss is raised about the disappearance of a South Korean plane flying from New York to Seoul. It should be noted that already in the first report about this, reference was made to the Central Intelligence Agency of the US. Further information issued by the US provides more and more reasons to believe that the route and the character of the flight were not fortuitous. Significantly, now, post factum, the American side not only openly accepts the fact that this plane violated Soviet air space, but also gives data which show that the competent American services followed this flight with the utmost attention all the way along.

If the problem concerned the ordinary flight of a civil airplane under constant observation, why were no measures taken by the American side to stop this blatant violation of Soviet air space and guide the plane back to the international route? This is the question that arises.

Why didn't the American powers which now resort to all sorts of dirty insinuations towards the USSR try to establish contact with the Soviet side and give (them) the necessary data concerning this flight? No measures were taken, although there was ample time for them.

It should be said that this is not the only planned violation of Soviet State borders by American planes, as well as in the Far East. Protests have been filed several times to the US government in connection with this.

On the basis of these facts, the intrusion of the above mentioned plane within (our) air space must be considered a premeditated action. Evidently enough, the calculation was to fulfill a deliberate intelligence mission without obstruction under the cover of a civil plane.

More than that, there is evidence showing that those who planned this provocation deliberately intended to aggravate the international situation even more, to calumniate the Soviet peace-loving policy, to propagate a feeling of enmity towards the USSR and to defame our country.

The slanderous, shameless statement immediately made by Reagan, the President of the US, against the USSR testifies to this.

Tass has been empowered to express the regrets of the ruling circles of the USSR in connection with the human victims and together with that (to stress) a decisive condemnation of those who deliberately or as the result of criminal carelessness permitted the death of men and now try to take advantage of the events (using them) to a black political end.

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NOTES

¹ For a broader view of the problem in the particular case of Kirghiz see Imart, 1982 and Imart 1983:211-240.

² Cf. various issues of *Hurriyet* for September 1986.

³ Judaxin 1965 gives about 3,500 Russian loanwords (10%). Another dictionary, *Russko-kirgizskij slovar'* (K. K. Judaxin, editor, Moscow) published in 1940, contained only 6.17%.

⁴ This French idiomatic expression is becoming an international catchword and seems more accurate than 'journalese': the jargon involved is not, by far, restricted only to newspapers and magazines. It seems likely to be a calque from English: one of H.G.Well's heroes in "The Time Machine" "volunteered a wooden account" of the story.

⁵ Including Ch. Aitmatov's father who was shot in 1938.

⁶ Practically all the arguments developed for or against a more independent Kirghiz literary language which can be found in *Russkoe slovo v jazykovoj žizni Kirgizii* (1984, Frunze, Mektep basmasy) are mechanical, at times literal repetitions of previous discussions held in 1966, 1940, 1934, 1926, etc. The last available account of the official policy in Kirghizia (from Brezhnevian times) is *Mogućij faktor nacional'no-jazykovogo razvitija* (1981, Frunze, Kyrgyzstan basmasy).

PARADIGM AND AGREEMENT IN ESTONIAN: A STUDY IN SYNTAX-MORPHOLOGY INTERFACING

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Estonian exhibits several kinds of adjective-noun agreement phenomena: regular case and number agreement, nonagreement, partial agreement, and allomorph agreement. From each type of agreement I demonstrate what can be inferred about the interaction of syntax and inflectional morphology. Some of the specific issues that are relevant are: the old listing-versus-generating controversy in morphology, the treatment of exceptionality in morphosyntax, and the internal structure of the inflectional system.

One main question is how much of the paradigm is stored statically in the lexicon and how much is generated from other pieces of morphology. In other words, are the twenty slots in an Estonian nominal paradigm exhaustively listed, or is the paradigm generated from a single base form with the help of some formation rules?

In addition, as far as the syntax of the language goes, it must be stated somewhere not only that the adjective *suure* in *suure lapse* 'big child' is marked [GENITIVE SINGULAR], but also how it came to acquire those features (from the head noun *lapse*). The spreading of features is treated in this paper through the syntactic mechanisms outlined in Generalized Phrase Structure Grammar (i.e., the Head Feature Convention and the Foot Feature Convention; cf. Gazdar et al. 1985).

The issue with regard to agreement is one of apportionment: which aspects of agreement belong to syntax and which to morphology? In regular case and number agreement there is no simple way to decide the issue. But in exceptional agreement patterns such as partial agreement and non-agreement, evidence points to a completely productive syntactic system of agreement, even to the point of overgeneration of features, coupled with a morphology rich enough to handle both regular patterns and exceptions in the paradigm.

As for the inflectional paradigm, I take the tack of Karlsson (1983, 1984) who has listing for the most frequently used slots of the paradigm and for exceptional forms, and generation for the rest of the paradigm. Karlsson's work on the morphology of closely related Finnish suggests that a compromise is warranted. "Central" categories (nominative, genitive, partitive; singular) tend

to be listed; “peripheral” categories are generated. Karlsson’s studies are particularly relevant insofar as he revives the notions ‘paradigmatic dependency’ and ‘cohesion’ in the paradigm.

Some Data. Traditionally Estonian is said to have fourteen case categories and two numbers, i.e., twenty-eight possible case-number combinations in the nominal paradigm. My own research (Nevis 1982, 1987) lowers the actual number of cases to ten (the other four are argued to be extra-paradigmatic clitic postpositions rather than true inflectional suffixes). These ten cases times the two numbers yield twenty slots in the typical Estonian nominal paradigm.

(1)		SINGULAR	PLURAL
	NOMINATIVE		
	GENITIVE		
	PARTITIVE		
	ILLATIVE		
	INESSIVE		
	ELATIVE		
	ALLATIVE		
	ADESSIVE		
	ABLATIVE		
	TRANSLATIVE		

As in many languages in the world, Estonian exhibits adjective-noun agreement within a noun phrase. In typical noun phrases, adjectives agree in case and number with their head noun:

- (2) suur-i-st laps-i-st
big-PL-EL child-PL-EL
‘from big children’

*suur(e) laps-i-st
*suur-i laps-i-st
*suure-st laps-i-st

Allomorph Agreement. Estonian also exhibits allomorph agreement in those categories in which there are multiple allomorphs available. The plural is one such category — with allomorphs *-i*/vowel change and *-de/-te*. Another is the illative — with two sets of allomorphs: one a stem change, the other a discrete morph *-sse*. Not all word shapes and paradigm types permit both allomorphs for the plural or for the illative, but most

do, so the issue arises frequently. (3a) has allomorph agreement and is acceptable; (3b), with no agreement, is judged bad.

- (3) a. no-i-l aasta-i-l
 those-PLURAL-ADESSIVE year-PLURAL-ADESSIVE
 ‘in those years’
 b. ??no-i-l aasta-de-l

In (3) the *i-* plural adjective is less compatible with a *de-* plural noun than it is with an *i-* plural noun. The same holds for adjective-adjective combinations. Although allomorph agreement may sound bad or awkward to the native ear, there are in fact numerous exceptions. As it turns out, we are not actually dealing with a rule of agreement at all, but a strong preference. Allomorph agreement is a stylistic tendency only, not an absolute rule of grammar.

More interesting are instances where there is no agreement between adjective and noun, and where there is only partial agreement. Gaps in the paradigm also restrict the occurrence of agreement in a noun phrase.

On the Paradigm. I adopt a framework in which the inflectional paradigm plays an active role in the determination of agreement patterns. The paradigm has two relevant aspects: the expressing of generalizations of form (i.e., what shapes the case and number affixes have and what intra-systemic dependencies exist among shape rules) as well as the statements of exceptionality.

With ten true case suffixes and two numbers, the Estonian paradigm yields twenty slots. I assume that most slots are filled generatively through morphological formation rules. The formation rules are interdependent and constrained by the general metarules in (4). See Karlsson (1983) and Zwicky (1986) for more on such metarules.

(4) Rules of Referral:

- GENITIVE SINGULAR → NOMINATIVE PLURAL
- GENITIVE SINGULAR → PARTITIVE PLURAL
- GENITIVE SINGULAR → GENITIVE PLURAL
- GENITIVE → INESSIVE
- GENITIVE → ELATIVE
- GENITIVE → ADESSIVE
- GENITIVE → ALLATIVE

GENITIVE → ABLATIVE

GENITIVE → TRANSLATIVE

PARTITIVE PLURAL → INESSIVE PLURAL

PARTITIVE PLURAL → ELATIVE PLURAL

PARTITIVE PLURAL → ADESSIVE PLURAL

PARTITIVE PLURAL → ALLATIVE PLURAL

PARTITIVE PLURAL → ABLATIVE PLURAL

PARTITIVE PLURAL → TRANSLATIVE PLURAL

The rules in (4) read as follows: the formation rules for the genitive singular will always determine the formation rule(s) for the nominative plural; or conversely, the formation rule(s) for the partitive plural will always be dependent on the formation rule(s) for the genitive singular; and so forth.

The *keel* paradigm in (5) demonstrates that the nominative plural is built on the basis of the genitive singular, the partitive plural also on the genitive singular, the genitive plural comes from the partitive singular, the oblique cases from the genitive in both the singular and the plural, and the oblique plurals from the partitive plural. The more general rules regulating the oblique cases and the more specific rules determining the plural obliques have the effect of producing two plurals in the Estonian paradigm.

(5) Example paradigm *keel* 'tongue, language'

	SINGULAR	PLURAL
NOMINATIVE	keel	keeled
GENITIVE	keele	keelte
PARTITIVE	keel-t	keeli
ILLATIVE	keel-(d)e	keelte-sse
	keele-sse	keeli-sse
INESSIVE	keele-s	keelte-s
		keeli-s
ELATIVE	keele-st	keelte-st
		keeli-st
ALLATIVE	keele-le	keelte-le
		keeli-le
ADESSIVE	keele-l	keelte-l
		keeli-l
ABLATIVE	keele-lt	keelte-lt
		keeli-lt
TRANSLATIVE	keele-ks	keelte-ks
		keeli-ks

Dependency metarules may also be specific to declension class. Arbitrarily assigned numbers are used to refer to declension class and other morphological classes, for example, declension class [34], or adjective classes [6], [11], and [30].

Moreover, I assume that slots in the paradigm can be prespecified and that pre-filled items preempt the more general morphological formation rules. Empty slots are always subject to being filled. Occasionally gaps occur in the paradigm — some are semantically motivated,¹ some are unpredictable and so must be marked in some manner.

In certain paradigms the nominative singular is missing, although all the other forms are present in a regular fashion. Thus in the paradigms for adjectives *ligi(da)* 'near,' *lähe(da)* 'near,' *lühi(ke)* 'short,' and *õhe(ke)* 'thin,' there is no nominative singular.²

(6) *Lähe(da)* paradigm:

	SINGULAR PLURAL	
NOMINATIVE	Ø	läheda-d
GENITIVE	läheda	läheda-te
PARTITIVE	lähedat	läheda-i-d
ILLATIVE	läheda-sse	läheda-te-sse läheda-i-sse
INESSIVE	läheda-s	läheda-te-s läheda-i-s
ELATIVE	läheda-st	läheda-te-st läheda-i-st
ALLATIVE	läheda-le	läheda-te-le läheda-i-le
ADESSIVE	läheda-l	läheda-te-l läheda-i-l
ABLATIVE	läheda-lt	läheda-te-lt läheda-i-lt
TRANSLATIVE	läheda-ks	läheda-te-ks läheda-i-ks

The above paradigm requires a statement to the effect that the NOMINATIVE SINGULAR slot must remain empty. Assuming that the declension class of *ligi(da)*, *lähe(da)*, *lühi(ke)*, and *õhe(ke)* covers a wider range of paradigms than just these four defective paradigms, let us restrict the set of paradigms referred to by assigning an arbitrary morphological class number [6] to them.

- (7) In morphological class [6], NOMINATIVE SINGULAR = Ø

Note that the syntax need not be informed of this gap. Syntax can predict the feature combination [CASE:NOMINATIVE] AND [NUMBER: SINGULAR], but if there is no match in the morphology, then the result is ungrammatical.

- | | | |
|-------------------|-----|-------------------------|
| (8) SYNTAX | | MORPHOLOGY |
| <i>lähe(da)</i> | ←X→ | <i>lähe(da)</i> |
| [CASE:NOMINATIVE] | | [CLASS 6] |
| [NUMBER:SINGULAR] | | [NOMINATIVE SINGULAR=Ø] |

The way that one expresses a nominative singular with the meanings of one of the defective adjectives is to use a derivative of the adjective in question. For example, derivative adjectives in *-ne* have complete paradigms:

- | | |
|---------------------|---------|
| (9) <i>lähedane</i> | 'near' |
| <i>ligidane</i> | 'near' |
| <i>õhekene</i> | 'short' |
| <i>lühikene</i> | 'thin' |

Agreement and Non-Agreement. Recall that within a noun phrase adjectives agree in case and number with their head nouns:

- (10) suur laps 'big child'

	<u>SINGULAR</u>	<u>PLURAL</u>
NOMINATIVE	suur laps	suured lapsed
GENITIVE	suure lapse	suurte laste
PARTITIVE	suurt last	suuri lapsi
ILLATIVE	suuresse lapsesse	suurisse lapsisse
INESSIVE	suures lapses	suuris lapsis
ELATIVE	suurest lapsest	suurist lapsist
ALLATIVE	suurele lapsele	suurile lapsile
ADESSIVE	suurel lapsel	suuril lapsil
ABLATIVE	suurelt lapselt	suurilt lapsilt
TRANSLATIVE	suureks lapseks	suuriks lapsiks

There are exceptions to the case/number pattern and to the number of cases available to certain paradigms. For example, the

adjective *eri* 'different' fails to agree under any circumstance; it remains indeclinable:

- (11) *eri laps* 'different child'

	<u>SINGULAR</u>	<u>PLURAL</u>
NOMINATIVE	<i>eri laps</i>	<i>eri lapsed</i>
GENITIVE	<i>eri lapse</i>	<i>eri laste</i>
PARTITIVE	<i>eri last</i>	<i>eri lapsi</i>
ILLATIVE	<i>eri lapsesse</i>	<i>eri lapsisse</i>
INESSIVE	<i>eri lapses</i>	<i>eri lapsis</i>
ELATIVE	<i>eri lapsest</i>	<i>eri lapsist</i>
ALLATIVE	<i>eri lapsele</i>	<i>eri lapsile</i>
ADESSIVE	<i>eri lapsel</i>	<i>eri lapsil</i>
ABLATIVE	<i>eri lapselt</i>	<i>eri lapsilt</i>
TRANSLATIVE	<i>eri lapseks</i>	<i>eri lapsiks</i>

The exceptions to agreement involve only adjectives. Nouns do not impose non-agreement on accompanying adjectives. The set of uninflecting adjectives includes *eri* 'different,' *kogu* 'all,' the unstressed possessive *oma* 'own,' *eht* 'genuine,' several compounding adjectives, such as *-karva* 'colored,' *-ohtu* 'somewhat,' and *-võitu* 'somewhat,' and the set of all deverbal adjectives with the active past participle *-nud* and the passive past participle *-tud*. This set is assigned the label of [CLASS 11]. Some examples are given in (12-19)

- (12) *kogu maailma-s*
whole world-INESSIVE
'in the whole world'
- (13) *oma maailma-st*
own world-ELATIVE
'from one's (own) world'
- (14) *eht teemandi*
genuine diamond/GENITIVE
'of a real diamond'
- (15) *taevakarva auto-sse*
sky-colored car-ILLATIVE
'into the sky-colored car'

- (16) lapseohtu mehe-le
childlike man-ALLATIVE
'to the childish man'
- (17) paksuvõitu raamatu-s
thickish book-INESSIVE
'in a thickish book'
- (18) joobunud inimest ei maksa arvestada
drunk person/PARTITIVE not pay consider
'It does not pay to reckon with a drunk person'
- (19) Ta kuulub teatud ühiskonda
he/she belongs certain community/ILLATIVE
'She/he belongs to a certain community'

The word *oma* has agreement when it emphasized or stressed. otherwise it lacks agreement. Some of the other adjectives, but by no means all, can be made to be declinable by the addition of an appropriate derivational suffix. For example, *eht* is indeclinable, but its derived synonym *ehtne* is declinable. In (20) *ehtse* is the genitive singular of *ehtne*.

- (20) ehtse teemandi
genuine/GENTIVE diamond/GENTIVE
'of a genuine diamond'

To handle this idiosyncrasy one might introduce into the syntactic rule of agreement some mechanism that suppresses agreement, say a feature like [EXCEPTION: +]. A morphosyntactic match-up for *eri* might then be something like this:

- (21) eri laps
[EXCEPTION:+][ADESSIVE]

↔ eri lapse-l 'to a different child'

←X→ eri-l lapse-l 'to a different child'

This approach is taken by Hakulinen and Karlsson (1979:50) for closely related Finnish. They adopt a similar feature [CONGRUENCE:-] to suppress agreement. The feature is binary — a lexeme will either accept agreement in its entirety or will

reject it. Partial agreement is not accounted for under this approach.

Partial Agreement. Several noun phrases have so-called partial agreement. These involve adjectives that require "inner local cases" (i.e., illative, inessive, and elative) plus nouns that require "outer local cases" (i.e., allative, adessive, and ablative):

- | | |
|--------------------|--------------------|
| (22) ku-s | koha-l |
| WH-INESSIVE | place-ADESSIVE |
| 'in what place' | |
| (23) välja-st | poolt ³ |
| out-ELATIVE | half/ABLATIVE |
| 'from the outside' | |
| (24) see-s | pool |
| inside-INESSIVE | half/ADESSIVE |
| 'in the inside' | |
| (25) siia | poole |
| here/ILLATIVE | half/ALLATIVE |
| 'to this side' | |

The four patterns in (22-25) have adjectives in the inner local cases but nouns in the outer local cases. In general, these words allow an inessive, illative, or elative to occur where an adessive, allative, or ablative, respectively, is expected in agreement. Since the paradigms for these words are defective — only the three inner local cases are permitted — the grammar is forced to accept a mixing of inner and outer local cases. Forms of *kus*, for example, are found only in three case categories (namely, the inessive, elative, and illative) and only in the singular. In (26) the *kus*- forms take inner local cases and the *koht* forms take outer local cases.

- (26) *Ku-* + *koht* 'place, spot'

	SINGULAR	
INESSIVE	ku-s koha-l	'in what place'
ELATIVE	ku-st koha-lt	'from what place'
ILLATIVE	ku-hu koha-le	'into what place'

The difference between the *kus* -type paradigm and the paradigm lacking a nominative singular lies in whether the grammar accepts partial agreement or not. I assume that in the *kus* -type paradigm something says that inner local cases can stand in place of outer local cases (but only when the cooccurring noun lacks an inner local case set). See below for details of the analysis.

The solution to simply mark exceptional adjectives as [CONGRUENCE:-] or [EXCEPTION:+] fails because the irregularities are of different sorts. The gross syntactic feature is blind to the differences; compare partially agreeing *kus kohal* to non-agreeing *eri lapsel*.

Closely related to the *kus* -type of partial agreement, if not in fact the same phenomenon, is appositive agreement. Appositives agree with their heads just as attributive adjectives do. But when specific lexemes require difference cases, the resulting partially agreeing noun phrase is syntactically acceptable. In (27) *kodulinn* takes the inessive and the placename *Tapa* requires the adessive.

- (27) *Kodulinna-s* *Tapa-l* *oli palju muutunud.*
 hometown-INESSIVE Tapa-ADESSIVE was much changed
 ‘In the hometown Tapa, much had changed.’

Partial agreement provides some evidence for the compositionality of at least some case suffixes. Since there is not total nonagreement or a random matching of case features, some principle must allow for the partial semantic agreement.

Exceptionality in the Paradigm. Paradigmatic structure rules play a large role in establishing the forms available for any particular lexeme. In the instance of uninflecting adjectives, one could easily list all the forms, thereby indicating that no new inflectional forms can be generated. For example, (28) gives the paradigm for *eri*:

(28) *eri* 'different'

	SINGULAR	PLURAL
NOMINATIVE	eri	eri
GENITIVE	eri	eri
PARTITIVE	eri	eri
ILLATIVE	eri	eri
INESSIVE	eri	eri
ELATIVE	eri	eri
ALLATIVE	eri	eri
ADESSIVE	eri	eri
ABLATIVE	eri	eri
TRANSLATIVE	eri	eri

However, nothing really promotes blocking in an Estonian paradigm since many paradigms allow parallel forms—cf. (5) above. There ought to be some way to indicate that formation rules do not apply or are restricted in an irregular paradigm.

In addition there is a slight problem in the treatment of partial paradigms. If the *kus* -paradigm is listed as in (29), then the slots left blank could be filled in by the formation rules.

(29) *kus* 'where'

	SINGULAR	PLURAL
NOMINATIVE		
GENITIVE		
PARTITIVE		
ILLATIVE	kuhu	
INESSIVE	kus	
ELATIVE	kust	
ALLATIVE		
ADESSIVE		
ABLATIVE		
TRANSLATIVE		

But what is crucially stated in this paradigm is that the other slots have no realization. Therefore I propose that some other mechanism be introduced. Let a zero be inserted where a predicted form does not actually exist in the paradigm.

(30) *kus* 'where'

	SINGULAR	PLURAL
NOMINATIVE	Ø	Ø
GENITIVE	Ø	Ø
PARTITIVE	Ø	Ø
ILLATIVE	kuhu	Ø
INESSIVE	kus	Ø
ELATIVE	kust	Ø
ALLATIVE	Ø	Ø
ADESSIVE	Ø	Ø
ABLATIVE	Ø	Ø
TRANSLATIVE	Ø	Ø

The box notation is not entirely satisfactory either in that it appears that just about anything can be entered into a paradigm slot. In fact, nothing prevents the use of twenty suppletive forms in, say, the paradigm in (28). An alternative and better notation captures relevant generalizations, which may extend across paradigms when needed. Thus (31) captures generalizations across *kus*, *sees*, *siin*, and *väljas* from (22-25).⁴ The statements in (32) take care of the uninflecting adjectives from (12-19).

(31) Class [30] adjectives:

PLURAL = SINGULAR, NOMINATIVE = Ø, GENITIVE = Ø, PARTITIVE = Ø, etc., ILLATIVE = *kuhu/sisse/siia/välja*, INESSIVE = *kus/sees/siin/väljas*, ELATIVE = *kust/seest/siit/väljast*, ALLATIVE = ILLATIVE, ADESSIVE = INESSIVE, ABLATIVE = ELATIVE.

(32) Class [11] adjectives:

GENITIVE = NOMINATIVE, PARTITIVE = NOMINATIVE, ILLATIVE = NOMINATIVE, etc.

Conclusion. I have argued that evidence for the nature of agreement in the syntax-morphology interface comes from instances where agreement does not follow the regular pattern. Exceptional situations like non-agreement and partial agreement indicate that syntax overgenerates agreement and that morphology filters out the unacceptable feature combinations or simply provides an uninflecting wordform (cf. also Hale, La Verne, and Platero

1977). This is compatible with the idea that idiosyncracies belong to morphology and the lexicon rather than to syntax.

In elaboration of the notion 'paradigm,' I have claimed that two sorts of paradigm structure rules are needed. First, there are formation rules which may be restricted to single paradigms or may be broad enough to cover an entire declension class or word class. And second, there are general rules of paradigm structure — rules of referral that link specific formation rules.

Usurping the referral and formation rules are lexically listed slot-rules and lexical items. Slots in the paradigm can be prefilled with respect to the formation rules or may be identified as unfillable. Generally the more frequently used, less semantically predictable slots are those that are listed: namely, NOMINATIVE SINGULAR, GENITIVE SINGULAR, PARTITIVE SINGULAR, ILLATIVE SINGULAR, NOMINATIVE PLURAL, though Karlsson (1983, 1984) suggests that lexical semantics may play a large role in deciding which cases are central and which are peripheral. For example, the locative cases will be more important to place names and geographical items, than will be grammatical cases such as genitive and partitive.

The strategy taken in this paper is a compromise between full lexical listing and complete generation from a single base form. Gaps in the paradigm must be indicated in some manner in order that empty slots not be filled in by the formation rules. I have used zeros for this purpose. By exploiting paradigm structure rules, I have been able to account for minor morphosyntactic patterns like nonagreement, partial agreement, and arbitrary gaps in the paradigm.

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NOTES

¹An example is the semantic anomaly of the translative case *-ks* plus the root *ku-* 'where,' which can only cooccur with locative and directional cases (illative, inessive, and elative): **ku-ks* '(being) as where'.

²The expected nominatives for these words are *ligi*, *lähe*, *lühike*, and *õhe(ke)*, respectively. Usually the genitives are given as citation forms.

³Orthographically the phrases in (23-25) are written together as compounds, but there is no reason not to consider them phrases rather than single words.

⁴As Bill Darden has pointed out (p.c.), in order to prevent *kus* + outer local cases on nouns where both inner and outer local cases are possible, this solution requires that forms like *kus* govern the nouns with which it cooccurs.

THE NAKH EVIDENCE FOR THE HISTORY OF GENDER IN NAKH-DAGHESTANIAN⁰

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1. Introduction. Most languages of the Nakh-Daghestanian family have a viable inflectional category of gender in nouns. There are from two to eight gender classes, usually covert in the nouns and marked by agreement in verbs (and occasionally also in adjectives, adverbs, and/or postpositions). Agreement takes the form of mutation or substitution of the initial consonant, and/or sometimes also (in languages of the Lezghian branch) of a medial consonant; initial and medial mutation are traditionally viewed as prefixation or infixation respectively. The consonants involved can rather easily be reduced to the set **v, *b, *j, *d, *r*, which would appear to have been the gender prefixes of the protolanguage. The individual languages rarely use more than four markers, although up to eight gender classes can be signaled by different combinations of singular and plural markers. Typically there is a macroclass that can be labeled 'human,' which subdivides into masculine and feminine based on the sex of the referent; and a nonhuman macroclass which may subdivide into two to six arbitrary genders (one of which may coincide formally with the feminine gender of the human macroclass). For the form and semantics of gender in the various languages see individual grammars (a detailed description for Tabassaran is Kibrik & Seleznev 1982); comparative discussions include Xajdakov 1980, Gudava 1959:8ff., Klimov ed. 1978:67-8, 70, Klimov & Alekseev 1980:265ff. Case paradigms are agglutinative and do not have distinct declension classes, although some of the languages have allomorphy in the ergative case which is based on animacy or follows roughly the same semantic lines as the human/nonhuman distinction in gender macroclasses.

Examples (1-4) show gender agreement in three Nakh-Daghestanian languages ("=" marks the morpheme boundary for gender prefixes; no boundaries are marked for infixed gender markers). Gender agreement is on the ergative pattern in all Nakh-Daghestanian languages exhibiting gender: the verb agrees with the intransitive subject or transitive object (which is in the nominative case).

(1) Ingush (Nakh branch)

suona v=ieza sej vaša	'I like my brother'
suona j=ieza sej jiša	'I like my sister'
suona d=ieza yz bier	'I like this child'
suona b=ieza yz jett	'I like this cow'
me-DAT like my/this	

(2) Ingush

suona gu sej vaša	'I see my brother'
suona gu sej jiša	'I see my sister'
suona gu yz bier	'I see this child'
suona gu yz jett	'I see this cow'
me-DAT see	

(3) Budukh (Lezghian branch) (Mejlanova 1984:199)

gadaz ada jikazi	'the boy likes [his] father'
gadaz riž jirkazi	'the boy likes the girl'
gadaz kel jukozi	'the boy likes the lamb'
boy-DAT like	

(4) Megeb (Dargi) (Magometov 1982:16)

nuni urši w=arzur-ra	'I praised the boy'
nuni xunul r=arzur-ra	'I praised the woman'
nuni dursi d=arzur-ra	'I praised the girl'
nuni urči b=arzur-ra	'I praised the horse'
I-ERG praise-TENSE	

(1) shows initial consonant alternation in the Ingush verb 'like,' which takes agreement. (2) shows identical syntax with the verb 'see,' which does not take agreement. (3) shows gender agreement by infixation in a language of the Lezghian branch of Daghestanian: the presence or absence of medial *-r-*, and vowel ablaut probably reflecting lost medial consonants, depend on the gender of the noun. (4) shows prefixation, highly analogous to that of Ingush, in the Dargic branch of Daghestanian.

The genders are generally not given names in the literature, except for human nouns. Sometimes they are given numbers, and sometimes the prefixal markers are used to identify the genders: e.g., Chechen *la:m* (*b, d*) 'mountain,' *pa:zat* (*j, j*) 'sock,' a descriptive practice that goes back to Uslar and will be used here. In the Russian and Georgian grammatical traditions, the category of gender itself is referred to not as gender but as class, on the grounds that the semantics and formal marking are different from

the prototypical gender of Indo-European languages. However, I will continue to use the term 'gender,' for two reasons. First, of the several principles of formal and functional categorizations of nouns commonly found in the world's languages — agreement, declensional paradigms, number and/or case defectiveness, access to certain syntactic functions, numeral classifiers, alienable vs. inalienable possession, etc. (this list, and the approach to gender and noun categorization taken here, are based on Weitenberg 1987) — the term 'gender' is commonly applied to the kind marked by agreement, and it makes sense to reserve a special term for this salient and diachronically stable kind of classification. In this paper, then, the Nakh-Daghestanian classes will be referred to as genders, since their primary (and often exclusive) formal mark is agreement; the terms 'class' and 'classification' will be used only in a loose and general sense.

The mainstream Western view of gender and other classes (see, e.g., Craig ed. 1986) is apparently that they can be expected to code semantics, typically the semantics of animacy and/or shape categories, more or less straightforwardly; the semantic categories are hierarchical, with a bifurcation such as animate vs. inanimate and further subdivisions such as masculine vs. feminine, shape categories, etc. This is consistent with some of the premises of the comparative Nakh-Daghestanian literature on gender (the major recent contribution is Xajdakov 1980). This literature deals principally with Daghestanian. Its focus is on reconstructing (1) a system of semantic classes, (2) a system of markers, and (3) principles for the distribution of markers among classes. It sees the origin of gender as a semantic issue: the proto-system is assumed to have been semantically consistent (and the various opacities in gender classification of nouns in the daughter languages are assumed to be secondary), and its motivating principles are the fundamentals of non-linguistic taxonomy (tied in with the evolution of human thought: the earliest system distinguished animate from inanimate or human from non-human, then an opposition of masculine to feminine gender arose as social classes evolved; and so on). In sum, the approach is highly deductive; the logical hierarchical ranking of the conceptual system in terms of which we talk about taxonomy is taken as an evolutionary progression, and the most generic terms of the logical hierarchy (animate vs. inanimate, or human vs. non-human) are taken as the necessary reconstructed proto-system.

The present paper, in contrast to most of the literature, deals primarily with Nakh. It focuses on form rather than semantics as a

driving force in the rise and development of gender. Its approach is inductive. It is based on a survey of the complete lexical data from one language, and it aims at reconstructing the gender of individual words and the mechanism whereby particular syntagmas could have given rise to gender marking. Consistent with the definition of gender given above, it focuses on non-human nouns and on agreement.

The traditional view of gender in Nakh-Daghestanian goes hand-in-hand with the traditional view of the Proto-Nakh-Daghestanian and common Nakh-Daghestanian verb root as monoconsonantal. The theory of the monoconsonantal verb can be questioned, however, and here I assume the Proto-Nakh-Daghestanian verb root canon of $*(C)V(R)C$ proposed in Nichols, in press. In this non-traditional view, gender marking on the verb is secondary; it has obliterated virtually all root initials in the easternmost branches of Daghestanian (where the verb root is indeed synchronically monoconsonantal as a result), but only a minority in Nakh, which is more conservative. The gender 'infixes' of Lezghian and Dargic are actually reflexes of the root-medial $*(R)$, which was secondarily identified with one or another of the gender markers. There is evidence for a pre-Proto-Nakh-Daghestanian system of alternating verb-initial consonants which antedates the rise of gender and may have involved ancient prefixation; these alternations seem to have facilitated the spread of gender marking in verbs. We can assume, then, that gender marking in verbs arose in the east or southeast, where it is strongest (gender marking is found in the substantial majority of verb roots in the modern Lezghian languages preserving gender, and apparently also in the majority of roots in Dargic; see Magometov 1961), and spread west or northwest (according to Gudava 1959:17, some 50% of the Andic verbs have gender marking, and under 50% of the Avar verbs; 50% of the Lak verb roots listed by Bouda 1949:81ff. have gender prefixes), reaching Nakh later and/or in a weakened form (only 29% of the Chechen-Ingush verb roots have gender marking; Nichols, in press).

2. Data and method. For the present study I made a computerized database of Chechen nouns. Every noun listed in Maciev 1961 was tabulated, except for the following: proper nouns, recent and relatively unassimilated Russian loans, regular or productive suffixal derivations, regular inflectional forms (such as the verbal noun which every verb can form), compounds. These nouns were eliminated because their gender is predictable and their morphology is transparent. There remained a total of some 2000

synchronically unanalyzable nouns which were entered into the database. Not all of these are roots — the majority of them show the length, complexity, and evident affinity to other words that bespeak derivation, but our knowledge of historical Nakh nominal morphology is too poor to allow roots to be segmented out and affixes to be identified. In this situation it is the synchronically unanalyzable noun, rather than the historically irreducible noun root, that must serve as the basis for analysis.

Information entered for each noun in the database included gender, initial consonant, final consonant, thematic suffix (i.e., declension class), and referential semantics (e.g., plant name, artifact, round object), and others not analyzed here. The following sections describe and interpret correlations among gender, initial consonant, and referential semantics. They deal only with the non-human nouns (nouns of the human gender, once proper nouns and productive derivations had been eliminated from the database, were few in any event).

The genders of Chechen-Ingush will be labeled as shown in (5) below: capital letters label the abstract genders by the marker used in the singular only; lower-case italic letters show both the singular and the plural and label the most concrete level of gender classification. (I will use the term 'gender' for both the more abstract and the most concrete levels of analysis.) Recourse to the more concrete level is required at only two points: within the human macro-gender, where the markers depend on the sex of the referent and (in the plural) the person; and within the B category, where two different plural markers are possible and there are a few unique and mass nouns which lack plurals and therefore could not be assigned to either the *bd* or the *bb* gender. (Nouns lacking plurals are found in all genders, but require special classification only in the B gender since only there is the plural marker unpredictable and hence crucial to classification.) For the most part it suffices to refer to the more abstract D, J, and B genders.

(5) Gender classified By singular and Remarks
by singular marker plural marker

V/J	v/j, b/d	Human macro-gender
D	dd	
J	jj	

B		bb	Lacking plurals
		bd	
		b-	

The frequencies of the gender classes, by initial consonant of the noun, are shown in Table 1, together with the frequencies that would be expected if there were no interaction between initial consonant and gender (calculated by multiplying the total frequency for each initial by the percentages for the total database shown at the bottom of the 'Observed' portion). (The third part of Table 1 shows the calculations involved in chi-square testing, which are discussed below.)

3. Analysis.

3.1. Differences between nouns and verbs. The Chechen-Ingush verb lexicon is highly amenable to synchronic and historical analysis (Nichols, in press): there are 260 irreducible verb roots, a very regular phonological canon, a highly regular inflectional morphology and morphophonemics, virtually no loans, and no difficulties in the identification and segmentation of roots. The noun lexicon, in contrast, is much less tractable. It is an order of magnitude larger, lacks any identifiable canon, includes numerous loans, and abounds in morphological opacities. Some of these difficulties are clearly due to our poor understanding of historical Nakh nominal derivation; but even allowing for that, one gains the impression that the nominal root lexicon is and always has been large and unconstrained. It is also notable that the nominal and verbal lexica appear to be, and to have always been, absolutely distinct in Nakh: except for transparently recent and regular formations such as the verbal noun, there are no evident affinities between nominal and verbal roots, no sharing of roots, no ambiguities as to the original part of speech of roots, and no affixal means for forming denominal verbs.

One interesting formal difference between nouns and verbs is the discrepancies in the frequencies of the various points of articulation in initial consonants. The respective frequencies are (for more on verbs see Nichols, in press):

<u>Nouns</u>	<u>Verbs</u>	
labial	uvular	most frequent
alveolar	alveolar	
palatal	dental	
velar	velar	
dental	pharyngeal	least frequent
uvular	palatal	
pharyngeal	labial	

This is gross frequency, i.e., not adjusted for the number of consonants at each point of articulation (there, e.g., are seven alveolar consonants, five labials, three dentals). There are some striking discrepancies: uvulars, labials, and palatals nearly reverse their positions in the two rankings. In addition, the lateral / alone is the second most frequent point of articulation in verb initials, but if it were counted separately in nouns it would be the least frequent.

3.2. Semantics. The semantic analysis for this survey was fairly crude, based on gross referential semantics without consideration of connotation or cultural significance. The analysis is accordingly preliminary. Still, a few semantic generalizations can be made.

There are no evident correlations of gender with shape. The cross-linguistically common shape categories such as round, sticklike, ropelike, etc. show no detectable correlations with gender classification.

Non-fruiting trees belong overwhelmingly to the D class, while fruiting trees and fruits are largely in the J class. Nonetheless, within the broader category of plant names, the genders are distributed according to expectation, showing the same frequency percentages within plant names as within the entire corpus.

Names of wild animals favor the J class, although not quite significantly. There are no apparent subregularities.

Terms for manufactured items are distributed as expected among the D, J, and B categories; but within the B category they strongly favor the *bd* gender over the *bb* gender.

In general, then, some lexical categorizations appear to be associated with gender, but such instances are not numerous. Overall, referential semantics is not a particularly good predictor of gender. In particular, broad taxonomic classifications show little correlation with gender, apart from the human macro-gender (the one broad taxonomic classification of non-humans which shows some correlation with gender is wild animal names, and the correlation is not quite significant). The few correlations of significance are either semantically local (fruiting vs. non-fruiting trees) or formally local (*bb* vs. *bd* gender).

3.3. Form.

3.3.1. The initial consonant of the noun correlates strongly with its gender, for some consonants. (7) is extracted from Table 1. It shows the significant correlations of initial consonant with gender, rank-ordered by significance.¹ The major (i.e., most significant)

effect is indicated first, and any lesser effects are shown in parentheses.

(7) Initial consonant	Correlations with gender	Sum of Pearson residuals
d	favors D (disfavors J, B)	38.0
b	favors B (disfavors D)	24.1
j	favors J (disfavors B)	19.3
t	disfavors B (favors D)	13.8
m	favors B (disfavors D)	13.8
t'	favors B (disfavors D)	11.5
č	favors J (disfavors D)	10.2
q	disfavors D (favors B)	10.1
k'	favors B (disfavors D)	8.5

The first three entries (*d*-, *b*-, *j*-) are consonants which are identical to gender markers, and their effect is to significantly favor the gender marked by that consonant (D, B, J respectively). Of the remaining consonants, *t*-, *m*-, and *č*- favor the gender marked by a consonant of the same point of articulation (D, B, and J respectively). Only *t'*- reverses this trend, disfavors the homorganic D gender and favoring B. Only *q*- and *k*- have no homorganic gender marker; but it is at least interesting that the gender they favor is that marked by the acoustically most similar consonant, the labial (which shares acoustic gravity with the uvular and velar points of articulation). I will use the term **articulatory harmony** for the tendency of initials to correlate significantly with the gender marked by a homorganic or identical consonant. I will also occasionally use **acoustic harmony** for correlations like that of labials with velars or uvulars, without implying that acoustic harmony was ever a causal force in the gender system.

Table 2, which groups initial consonants together by point of articulation, documents the same tendency toward articulatory harmony. Only four of the seven points of articulation show significant correlations, as sets, with gender: the labials, dentals, and palatals favor homorganic B, D, and J gender respectively, and the alveolars favor the near-homorganic D gender. The points of articulation not homorganic to gender markers do not correlate significantly with gender.

3.3.2. However, articulatory harmony is not the invariable rule. Tables 3 and 4 are representative examples for individual points of articulation. The dentals (Table 3) show a highly significant degree

of internal discrepancy; significant internal discrepancy also occurs in the labials, palatals, and uvulars, not shown here. The velars (Table 4) do not show significant internal discrepancy; neither do the pharyngeals or the alveolars, not shown.

The internal discrepancies are interesting. In Table 3, initial *d*- favors D gender by articulatory harmony; but initial *t*'- disfavors it, and initial *t*- is absolutely neutral. Similar patterns appear in the labials, palatals, and uvulars: for every instance of articulatory harmony there is another initial consonant of the same point of articulation that reverses the principle. It is the instances of articulatory harmony that depart more from expectation (as shown in Table 1) and contribute to the significant effects displayed by entire points of articulation in Table 2. But Table 3 shows that the countertendencies are also strong. It is the combination of strong harmonic tendencies with somewhat weaker countertendencies that give the labial, dental, and palatal points of articulation their significant internal discrepancy.

Overall, then, broad articulatory classes favor genders in patterns reminiscent of the broad, taxonomic conditioning of gender by semantics in some languages. Articulatory harmony has a kind of iconicity that is lacking (or not described as existing) in semantically-based gender classifications. However, despite the iconicity and despite what would seem to be easy learnability of a gender system based on articulatory harmony, articulatory harmony is only a significant tendency, and not a rule or dominant principle, in Chechen-Ingush gender classification. The percentages of nouns displaying the harmonic genders for the *d*-, *j*-, and *b*-initials are the following:

(8)	initial	D	J	B
	<i>d</i> -	67%		
	<i>j</i> -		72%	
	<i>b</i> -			33%
	expected	36%	44%	20%

B is the least common gender in the language, so even this highly significant increase relative to expectation results in only one-third of the nouns in *b*- showing articulatory harmony.

3.3.3. In Section 3.3.1 above it was shown that initial *t*'- disfavors D gender and favors B, in violation of articulatory harmony; and that initial *q*- and *k*'- favor B gender in a pattern that may reflect acoustic harmony. Another tendency, not shown in the Tables, is that pharyngealization of the root vowel significantly

favors J gender (although the initial pharyngeal consonants do not: both ʕ and ħ display almost exactly the expected frequencies of genders).² In addition, the following individual data points in Table 1 are significant: ʒ- disfavors B gender; c'- favors D gender; p'- favors B gender; γ- favors B gender. The first is indirectly consistent with articulatory harmony, the second and third are manifestations of articulatory harmony, and the last may represent acoustic harmony if that is indeed a real tendency.

3.3.4. The three genders studied here are not uniform in their propensity to correlate with initial consonants. The sum of Pearson residuals in the gender columns of the 'TEST' section of Table 1 shows that B gender is most prone to correlation with initial consonant, then D, and then (with a much greater decrease) J. Table 2 shows that the ranking of the points of articulation of initial consonants for their propensity to correlate with gender follows the same hierarchy: labial > dental > palatal.

4. Historical interpretation.

4.1. **Semantics and gender.** The survey reported in Section 3.2 above shows that there is very little tendency for broad taxonomic semantic categories to be associated with particular genders (apart, of course, from the human gender). This means that there is no synchronic evidence for an earlier stage in which gender coded broad semantic categories. The synchronic situation is one where there are several (and probably many) local clusterings where most members of a small semantic field have the same gender. This is exactly what we would expect if the system have never been based on broad semantic categories: semantics operates, to the extent that it operates at all, in a bottom-up fashion, and local clusters form by analogy to salient or generic nouns.

4.2. **Form and gender.** If semantics determines gender in a local, bottom-up pattern, form — specifically, the initial consonant of the noun — operates in a broader, top-down fashion which is furthermore iconic. Which came first in instances of articulatory harmony, the initial consonant or the gender? There is solid etymological evidence for both directions of causation. (9)-(11) show initial consonant determining gender. (9) gives several examples of loan words where the initial consonants are plainly original, and gender echoes them. (10) shows two native Nakh-Daghestanian words whose initial consonants reconstruct regularly and are echoed in the Chechen-Ingush gender. (Information on Daghestanian correspondences, and the cognates cited in (13)-(16) below, come from Gigineišvili 1977.) (11) shows two native roots

whose initial consonants reconstruct regularly and trigger articulatory harmony in Chechen-Ingush.

- | | | |
|------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| (9) | Chechen-Ingush
<i>bulavka</i> (bd) 'pin'
<i>barz</i> (bd) 'mound'
<i>din</i> (D) 'faith' | source
Russian <i>bulavka</i>
Ossetic <i>bærzond</i>
Arabic <i>din</i> |
| (10) | <i>butt</i> (bd) 'moon'
<i>dwog</i> (dd) 'heart' | Nakh-Daghestanian
Nakh-Daghestanian |
| (11) | <i>ma:lx</i> (b) 'sun'
<i>muq</i> (bd) 'barley' | Nakh-Daghestanian
Nakh-Daghestanian |

(12) shows one loan word and one Nakh-Daghestanian word whose initials are original, and in which there is no articulatory harmony.

- | | | |
|------|---------------------------------------------------------|----------------------------------------|
| (12) | <i>ba:zar</i> (jj) 'bazaar'
<i>bworʒ</i> (jj) 'wolf' | Persian or Turkic
Nakh-Daghestanian |
|------|---------------------------------------------------------|----------------------------------------|

(13)-(16) show the opposite direction of causation, where a harmonic initial is secondary and must therefore be determined by gender:

- | | | |
|------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| (13) | Nakh

Ch-I <i>bʃar-ig</i> (bd) 'eye' | Daghestanian

Avar <i>ber</i>
Lezghi <i>wil</i>
Tabassaran, Agul, Rutulian,
Caxur <i>ul</i> |
| (14) | Ch-I <i>buqq</i> ' (bd) 'back' | Avar <i>maq'q'ar</i> id.
Hunzib <i>məqər</i>
Dargi <i>mu?</i> 'butt, back side'
Lak <i>muq'a-v</i> 'on back' |

The fact that the noun belongs to B gender has evidently caused the original consonant to be replaced by *b-* in Nakh (and also in Avar, in (13)). The Daghestanian cognates in (13) and (14) suggest that the B gender itself may originally have been due to articulatory harmony, and hence that this Chechen-Ingush tendency is ancient.

(15) and (16) are examples where the Nakh initial does not echo the gender marker, but Daghestanian cognates have initials which are identical to, or harmonic with, the Nakh gender marker.

(15)	Ch-I kuorta (bd) 'head'	Avar	bet'er
		Dargi	bik' (Uraxi)
		Lak	bak'
		Lezghi	(*wi)q'il
		Caxur	wuk'ul
		Udi	bul (*buul)
		Xinalug	mik'ir (*wik'ir)
(16)	Ch-I nitt (bb) 'nettle'	Avar	mič'č'
		Andi	mič'č'i
		Axvax	mic'c'i
		Dido	meča
		Lak	mič'
		Archi	mač
		Lezghi	miž
		Udi	meč'
		Xinalug	məč'

The Daghestanian cognates suggest that harmonic replacement of initials is an ancient tendency. Since the Daghestanian initials are harmonically motivated and the Nakh initials are not, the Nakh initials must be the original Proto-Nakh-Daghestanian initials.

We thus have evidence for causation in both directions, and we have evidence for it in both Nakh and Daghestanian: initial consonant determines gender in Nakh in (9)-(11) and at an early, perhaps Nakh-Daghestanian, stage in (13); gender determines initial consonant in Nakh in (13)-(14) and in Daghestanian in (15)-(16). In short, the evidence points to a situation in which articulatory harmony was a tendency but not a rule, and in which there was no single mechanism for achieving articulatory harmony. This is exactly the situation we find in modern Nakh, although individual Nakh words differ from their Daghestanian cognates. Thus both the tendency for articulatory harmony and the mechanism of local analogy seem to be ancient tendencies.

The earliest recoverable stratum would seem to be that shown in the Nakh words in (15)-(16), where there is no connection between initial consonants and gender. These words provide further evidence that articulatory harmony is a tendency and implemented locally; but, more interesting for historical linguistics, they may

also be relics of a very early stage antedating the rise of articulatory harmony, a stage where noun initials were fixed and arbitrary and unconnected with gender as they are in most of the world's languages.

4.3. Proto-Nakh-Daghestanian. The impetus toward articulatory harmony must have existed in Proto-Nakh-Daghestanian. An important contributing factor must have been the breakdown of the ancient system of verbal prefixes: as the prefixes lost their semantic functions and/or their clear formal segmentability, the synchronic result would have been unstable or variable verb-initial consonants, which could have been reinterpreted as echoing the initial vowel of the most closely governed noun. Under this scenario, there is no need to posit grammatical gender in nouns at an earlier stage: the genders would have been the automatic formal consequence of reanalysis, and formal agreement would have triggered the rise of gender classes. This development becomes more plausible if we assume that nouns referring to humans did have some kind of lexical classification based on the sex of the referent; the reanalysis then would have extended the notion of classification to the entire noun lexicon, giving rise to a true gender system once verb prefixes were reinterpreted as agreeing. Regardless of whether we assume prior lexical classification of human nouns, the rise of gender is driven by formal, not semantic, considerations under this scenario. At the point when grammatical gender crystallized, it was signaled (to the extent that it was signaled at all) primarily by the noun's root shape, and secondarily if at all by the initial consonant of the verb. The main fault to be found with this scenario is that actual instances where noun and verb initials echoed each other in sentences of the protolanguage could not have been particularly common, since (as shown in Section 3.1 above) the frequencies of the various initial consonants in noun and verb roots are quite different.

The scenario is somewhat different, and gains in plausibility, if we can assume Proto-Nakh-Daghestanian used systematic prefixation on nouns as well as on verbs. Then we can posit a simultaneous breakdown of the noun and verb prefixation systems, where prefixes began to lose their semantic functions and were thus ripe for reinterpretation as purely formal markers of agreement. Depending on just what the noun prefixes formerly meant, this scenario might even offer a germ of semantic conditioning for gender classes. Prefixes on nouns referring to male or female humans or animals might have sufficed to trigger a gender system which was semantically determined where the sex of the referent

was relevant but arbitrary and based on phonological form for other nouns. The consonants appearing with high frequency as noun initials are not the same as those figuring in verb-initial alternations and hence in verbal prefixation, so as long as verbal and nominal prefixation were living morphological processes in the protolanguage there would have been few instances of actual coincidence of verb-initial and noun-initial consonants; but as soon as either the nominal or the verbal prefixation began to break down one of the systems could easily have been interpreted as agreeing with the other.

It is difficult to find clear evidence for ancient noun prefixes in the modern Nakh noun canon analogous to that for verb prefixes found in the modern verb canon: the evidence for verb prefixation relies crucially on unambiguous segmentability and a clear structural canon for the verb root, both of which we lack for nouns. But there is some suggestive evidence in early loan vocabulary. One likely example is the Nakh-Daghestanian word for 'bull, ox': Nakh **(P)stawr-* / **(P)starw-* 'bull' (Ch. *stu*, oblique stem *star-*; Ing. *ust*, obl. *ustar-*; B. *pst'u*, obl. *pst'ar-*; all of *b, d* gender; **P* is a generic labial consonant), Daghestanian **(u)nc* (for the Daghestanian cognates see Gigineišvili 197:72, 89, Bokarev 1981:27; the reconstruction is mine, and the correspondences for Proto-Nakh-Daghestanian **st* are discussed in Nichols, in press). This is an obvious early loan from Indo-European (PIE **(s)tawro-s* 'bull' in its **s*-prefixed form). It has an evident labial prefix in both Nakh and Daghestanian, and consistent with this it is of *B* gender in Nakh and of the gender marked by *b-* in at least Lak and Archi (but *d-* or *r-* in Dargi: Xajdakov 1980:227).

5. Conclusions. There is no clear evidence that Nakh-Daghestanian gender was ever based primarily on semantics, and no evidence that it ever coded anything, except within the restricted sphere of nouns referring to humans or animates, where there may have been a classification based on sex. The phonological form of the root appears to have been the primary determinant of original gender classification for non-human nouns, and for these nouns the daughter systems remain semantically arbitrary to the present day. In short, gender classification of non-human nouns is and was largely opaque, but form is and was a better predictor of gender than semantics.

There may have been a formally or functionally distinct class of animate (or human) nouns in pre-Proto-Nakh-Daghestanian, but there is no evidence that this was true gender marked by

agreement. Actual gender arose before the breakup of Proto-Nakh-Daghestanian, as shown by the shared inventory of gender markers in the daughter languages, the general formal and semantic resemblances in the gender classes, and the identical gender classification of at least some words (e.g., 'bull,' above). The actual mechanics of agreement arose while the Nakh-Daghestanian languages still formed a single speech community but when the community was sufficiently dispersed that the innovation spread gradually and left differential frequencies of gender-marking verbs as evidence for its spread from east or southeast to west or northwest. There is evidence for gradual spread both within Daghestanian and between Nakh and Daghestanian. (The frequencies of gender-agreeing verbs in some daughter languages are given in Section 1. On different grounds, Xajdakov 1980:222 also assumes that Proto-Daghestanian was widely dispersed and not homogeneous.)

Whatever one's reconstruction of the rise of gender, it is clear that Proto-Nakh-Daghestanian was of a very different morphological type from its daughter languages. The daughter languages are primarily suffixing, they generally have nominal gender, and gender is overt in verbs but covert in nouns. The protolanguage, in contrast, seems to have been primarily prefixing in the verb and may also have used nominal prefixation; gender may have been lacking at first; and when it arose it was first, albeit perhaps briefly, overt on nouns before it became systematically overt on verbs. A prefixing structure without gender would be much more consistent with the typology of the other indigenous Caucasian languages than the present-day Nakh-Daghestanian structure is, and one wonders how and why the type should have shifted so drastically away from the indigenous norm. It is tempting to speculate that the growing influence of Bronze Age steppe culture exerted strong areal pressure on Proto-Nakh-Daghestanian, and that the shift to suffixation and gender agreement reflect Indo-European influence and coincided with the borrowing of Indo-European vocabulary such as **(P)stawr-* into Proto-Nakh-Daghestanian.

Table 1. Chechen nouns: Frequency of gender by initial consonant

Gender:	OBSERVED				EXPECTED			TEST			
	D	J	B	Total	D	J	B	D	J	B	Total
Initial											
p	20	26	16	62	22.1	27.6	12.3	0.2	0.1	1.1	1.4
t	48	39	7	94	33.5	41.8	18.7	6.3	0.2	7.3	13.8
c	7	10	4	21	7.5	9.3	4.2	0.0	0.0	0.0	0.1
č	21	53	12	86	30.6	38.3	17.1	3.0	5.7	1.5	10.2
k	28	36	11	75	26.7	33.4	14.9	0.1	0.2	1.0	1.3
q	6	24	14	44	15.7	19.6	8.8	6.0	1.0	3.1	10.1
ɕ	15	13	7	35	12.5	15.6	7.0	0.5	0.4	0.0	0.9
ʔ	60	56	20	136	48.5	60.5	27.1	2.8	0.3	1.8	4.9
b	38	76	57	171	60.9	76.1	34.0	8.6	0.0	15.5	24.1
d	58	19	9	86	30.6	38.3	17.1	24.4	9.7	3.8	38.0
z, ʒ	20	22	2	44	15.7	19.6	8.8	1.2	0.3	5.2	6.7
ʒ, ʒ	17	23	5	45	16.0	20.0	9.0	0.1	0.4	1.7	2.2
g	19	30	18	67	23.9	29.8	13.3	1.0	0.0	1.6	2.6
p'	2	0	3	5	1.8	2.2	1.0	0.0	2.2	4.0	6.3
t'	8	19	17	44	15.7	19.6	8.8	3.8	0.0	7.81	1.5
c'	16	9	3	28	10.0	12.5	5.6	3.6	1.0	1.2	5.8
č'	11	18	10	39	13.9	17.3	7.8	0.6	0.0	0.6	1.3
k'	9	21	16	46	16.4	20.5	9.2	3.3	0.0	5.1	8.5
q'	13	22	6	41	14.6	18.2	8.2	0.2	0.8	0.6	1.5
s	44	34	22	100	35.6	44.5	19.9	2.0	2.5	0.2	4.7
š	22	26	11	59	21.0	26.2	11.7	0.0	0.0	0.0	0.1
x	23	26	13	62	22.1	27.6	12.3	0.0	0.1	0.0	0.2
h	20	28	13	61	21.7	27.1	12.1	0.1	0.0	0.1	0.2
h	10	6	6	22	7.8	9.8	4.4	0.6	1.5	0.6	2.7
ɣ	38	42	10	90	32.1	40.0	17.9	1.1	0.1	3.5	4.7
m	40	67	48	155	55.2	68.9	30.8	4.2	0.1	9.6	13.8
n	17	25	11	53	18.9	23.6	10.5	0.2	0.1	0.0	0.3
l	23	20	6	49	17.5	21.8	9.7	1.8	0.1	1.4	3.4
r	4	6	0	10	3.6	4.4	2.0	0.1	0.5	2.0	2.6
v	13	17	3	33	11.8	14.7	6.6	0.1	0.4	1.9	2.4
j	14	41	2	57	20.3	25.4	11.3	2.0	9.7	7.7	19.3
Total	684 (36%)	854 (44%)	382 (20%)	1920	684	854	382	77.9	37.4	90.3	205.6
								df = 60, p < 0.001			

Table 2. Points of articulation compared

	OBSERVED				EXPECTED			TEST			
	D	J	B	Total	D	J	B	D	J	B	Total
labial	113	186	127	426	148.4	191.5	86.1	8.5	0.2	19.5	28.1
dental	114	77	33	224	78.1	100.7	45.3	16.6	5.6	3.3	25.4
alveolar	131	126	48	305	106.3	137.1	61.6	5.7	0.9	3.0	9.7
palatal	85	161	40	286	99.7	128.6	57.8	2.2	8.2	5.5	15.8
velar	79	113	58	250	87.1	112.4	50.5	0.8	0.0	1.1	1.9
uvular	57	88	30	175	61.0	78.7	35.4	0.3	1.1	0.8	2.2
pharyngeal	35	41	20	96	33.5	43.2	19.4	0.1	0.1	0.0	0.2
Total	614 35%	792 45%	356 20%	1762	614.0	792.0	356.0	34.0	16.0	33.2	83.3
								df=12, p < 0.001			

Table 3. Dentals

	OBSERVED				EXPECTED			TEST			
	D	J	B	Total							
t	48	39	7	94	47.8	32.3	13.8	0.0	1.4	3.4	4.8
d	58	19	9	86	43.8	29.6	12.7	4.6	3.8	1.1	9.5
t'	8	19	17	44	22.4	15.1	6.5	9.3	1.0	17.1	27.3
Total	114	77	33	224	114.0	77.0	33.0	13.9	6.2	21.5	41.5
	51%	34%	15%					df = 4, p < 0.001			

Table 4. Velars

	OBSERVED				EXPECTED			TEST			
	D	J	B	Total	D	J	B	D	J	B	Total
k	28	36	11	75	23.7	33.9	17.4	0.8	0.1	2.4	3.3
g	19	30	18	67	21.2	30.3	15.5	0.2	0.0	0.4	0.6
k'	9	21	16	46	14.5	20.8	10.7	2.1	0.0	2.7	4.8
x	23	26	13	62	19.6	28.0	14.4	0.6	0.1	0.1	0.9
Total	79	113	58	250	79.0	113.0	58.0	3.7	0.3	5.5	9.5
	32%	45%	23%					df = 6, p > 0.10			

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NOTES

⁰Some of the research for this paper was done in Tbilisi and Moscow while I was a participant in the 1983-84 ACLS-Academy Exchange of Senior Scholars, sponsored by the International Research and Exchanges Board. I am grateful to the Oriental Institute of the Georgian Academy of Sciences and its director Thomas V. Gamkrelidze for hospitality and facilities, and to the Caucasian Languages Sector of the Linguistics Institute, Georgian Academy of Sciences, for consultation and other assistance. I thank Andrea Rotnitzky and Othmar Pfannes of the Department of Statistics, University of California, Berkeley for statistical consultation.

¹If the Pearson residual — the value of $(\text{observed} - \text{expected})^2 / \text{expected}$ calculated for each data point and summed to obtain the chi-square value — is 2.3 or over the individual data point may be regarded as significant at $p = 0.05$. For a point of articulation to be included in (7) as significant, I required that at least two of its three genders yield significance and that the Pearson residual for one of them be 5 or over. The typical situation was that only two of the genders were significant, the more significant of these two was the result of greater than expected frequency, and the less significant was due to less than expected frequency. This suggests that the mechanism whereby initial consonant correlates with gender works as one would naively expect it to: a given consonant favors a given gender, mostly at the expense of one other gender but to a lesser extent also at the expense of the third gender.

²Trubetzkoy (1969:131) calls pharyngealization 'emphatic palatalization,' which would suggest that the correlation of J gender with pharyngealization might be acoustic harmony. Kingston & Nichols MS find that Chechen pharyngealization entails raising of F₁, i.e., partial higher tonality, but involves compaction rather than palatalization overall.

LEXICAL DOUBLETS AND TRIPLETS IN THE TURKIC LANGUAGES OF THE USSR

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The principal Turkic languages spoken and written within the USSR, apart from their close genetic affinity, share other features of interest from historical and sociolinguistic standpoints. Among these are the comparatively frequent occurrence of doublets (occasionally, triplets). These are alternate forms, derived from the same etymon and in general transparently cognate, but with lexically distinct meanings in current usage. English analogies among strictly etymological alternants are *debit/debt*, *fragile/frail*, *influence/influenza*, *person/parson/persona*; French provides *chevalier/cavalier*, and German, *Ritter/Reiter*, with virtually the same semantic distinction. In general I exclude such related phenomena as stylistic or dialectal alternants that are essentially synonymous (*leaped ~ leapt*, *provenance ~ provenience*, *aluminium ~ aluminum*, *church ~ kirk*, German *Atem ~ Odem*) and loan cognates (*shirt* and *skirt*). Examples of such nondoublets germane to this study would be Turkish *postahane ~ postane* 'post office,' and Persian *ostād ~ ostā* 'master'—but not the cognate variants of this latter in Tajik, Uzbek and Turkish, which are full semantic doublets (Table, B4; see discussion below). However, I include morphological doublets, which in English are mostly morphophonemic alternants (the article *a/an*), but in the Uzbek and Tajik examples below (Table, D6-8) are syntactically conditioned and hence, as distinctively nominal or verbal, deserve separate lexical entries.

In order to broaden the scope of potential generalizations I have additionally introduced a couple of doublets found exclusively in Turkish of Turkey (Tk.), as well as indicating the occurrence of Turkish reflexes of the alternants noted for the six relevant Turkic languages of the USSR, viz. Azerbaijani (Az.), Chuvash (Ch.), Kazakh (Kz.), Kirgiz (Kg.), Volga Tatar (Tt.) and Uzbek (Uz.) (no doublets have been noted for Turkmen). I have further noted analogies in Tajik (Tj.), the Persian dialect of Central Asia, where they parallel Uzbek usage, and have indicated the provenance of loanwords (<R, from Russian; <P, from Persian). Since all the loans from Persian and Arabic were historically mediated through Persian, I have indicated where appropriate that no similar

doublet-differentiation is evidenced in modern Persian of Iran (*P); the significance of this will become evident from what follows.

In a previous paper (Perry 1984a) I examined the forms of some doublets among feminine-ending Arabic loanwords in Tajik and Uzbek in comparison with their cognates in other varieties of Persian and Turkish. Among the conclusions drawn there was that semantic and syntactic specialization of loanwords tends more frequently to be marked phonetically or morphologically in Turkic languages, and in those Persian dialects (Tajik, Dari of Afghanistan) demonstrably influenced by a Turkic adstrate, than in Persian of Iran. Relevant examples are listed under section D in the Table. Under the rubric "specialization" I include the following processes:

(1) Simple assimilation into the vernacular as distinct from continued use as a *Fremdwort* or *mot savant* in the literary language, even without essential change of meaning, e.g., *hikoya* 'tale, story' vs. *hikoyat* 'literary parable' (D1)—only the latter reflex is found in Persian.

TABLE:
DOUBLET AND TRIPLET IN TURKIC AND ADJACENT LANGUAGES

A. NATIVE STOCK

1. ayak 'foot'	/azak 'end, result'	Tt
2. böyek 'great'	/biyek 'tall, high'	Tt
3. gīšlag 'winter pasture'	/gīšla 'barracks'	Az, Tk
4. laklak 'idle chatter'	/leylek 'stork'	Tk
5. olug 'title'	/olī 'big, adult'	Tt
6. turgī 'true'	/turī 'straight'	Tt

B. NON-ARABIC LOANS

1. gazeta 'newspaper'	/gezit 'makhorka paper'	Kg <R
2. zavod 'factory'	/zoot 'thoroughbred'	Kg <R
3. axund 'mulla, scholar'	/akīn 'bard'	Tt <P; */P
4. ustoz 'master: teacher'	/usta 'master: tradesman'	Tj, Uz, Tk; */P
5. padišah 'monarch'	/poššo 'lady' (in name)	Uz, Tj
	/paša 'chief'	Az, Tk; */P
6. xoja 'lord, landowner'	/xūja title	Uz, Tj
hoja 'master, teacher'	/koja 'husband; big'	Tk <P; */P
(cf. xawāja 'merchant')	/xoja 'eunuch'	Hindi

C. ARABIC LOANS: GENERAL (all */P)

1. gamel 'deed, activity'	/emel 'knack, means'	Tt
2. gazamat 'greatness'	/azamat 'warrior'	Tt
3. hajet 'demand'	/ejet 'loan, debt'	Tt
4. heves 'passion'	/eves 'greedy (for)'	Tt
5. heybet 'awe, grandeur'	/eybet 'nice'	Tt
6. kīymet 'dear, valuable'	/kīybat 'dear, expensive'	Tt
7. maglumat 'notification'	/malīmat 'knowledge'	Kz
8. nāgl 'transportation'	/na gīl '(fairy)tale'	Az
9. suret 'form, case'	/surat 'face, mien'	?Az, Tk
10. tamyiz 'discrimination'	/terniz 'clean, decent'	Az, Tk
11. ūkimet 'government'	/ōkimet 'power, force'	Kz

D. ARABIC LOANS: FEMININE-ENDING DIFFERENTIATION (all */P)

1. (hikoyat lit.)	/hikoya 'tale'; +V	Uz, Tj
xikeyat lit., +N	/xikeya 'tale'; +V/ekiyet 'tall tale'	Tt
	\ /ekiyet 'mocking song'	Ch
2. gōyat 'extreme(ly)'	/gōya 'aim, ideal'	Uz, Tj, Tk
3. iborat 'consisting of'	/ibora 'phrase'	Uz, Tj, Tt, Az, Tk
4. jamoat 'congregation'	/jamoā 'community, sel'sovet'	Uz, Tj
5. kifoyat 'competence'	/kifoya 'enough'	Uz, Tj, Tt
6. rioyat 'maintenance'	/rioya+V 'maintain'	?Uz, Tj
7. rivoyat 'report, fatwa'	/rivoya+V 'tell'	Uz, Tt
8. taqviyat 'reinforcement'	/taqviya+V 'reinforce'	?Uz, Tj

*/P: not differentiated in Persian

(2) Lexical specialization, as *gōya* (Tk. *gaye*) 'aim, purpose, ideal' vs. *gōyat* 'extreme(ly)' (Tk. *gayet*; Tt. *gayet*—the only reflex—also means 'holiday,' i.e., the end of the fasting month) from a literary loan with the basic sense 'farthest limit' (D2).

(3) Syntactic specialization, as *iborat*+ ablative in the adverbial collocation 'consisting of' vs. the fully nominal *ibora* 'phrase, idiom'; this widespread distinction is found also in Urdu, but not in Persian, which has *'ebārat* for both (D3).

The present study aims to refine and generalize conclusions suggested by the data for feminine-ending Arabic loanwords, by adducing evidence from Turkic doublets at large. It will be seen that the thirty-one items tabulated as occurring in doublet or triplet reflexes comprise a majority of Arabic loans (nineteen under sections C and D), but also a considerable minority of Persian and Russian loans and native Turkic words (six each). It will be argued from the comparative frequency of this phenomenon in Turkic languages and the type of semantic processes involved, that doublet formation represents a characteristic and autochthonous lexical

strategy of Turkish, not merely an adventitious feature of Arabic loans transmitted through Persian.

In the Table, the more literary and/or original forms (insofar as they can be identified) are listed on the left, and the more vernacular or derived alternants on the right. Where particular forms are not specifically documented, Tatar and Chuvash forms are from Axmet'janov (1987) and Scherner (1977); most of the others are to be found in Brands (1973).

Considering first the doublets from native lexical stock, the semantic differentiation in all six cases appears to consist in metonymy of various sorts. In four cases (nos. 2, 4, 5, and 6) it is the more literary or "original" reflex (on the left) that seems to reflect the metonymic development, while the phonetically reduced, and presumed more vernacular, reflex (on the right) retains the more concrete or simple sense. One possible explanation for this is suggested by doublet pair no. 4. *Laklak* was indubitably the original form for both the bird (the primitive sense) and the characteristic "clattering" noise of the stork's beak, which came to refer to idle chatter (the metonymic derivative; cf. the Ottoman variant of this, *laklakiyat*). But the reflex for the bird, a well-known seasonal visitor to Turkey and Azerbaijan, has subsequently been phonetically reduced, presumably as a result of vernacularization. This double process, whereby phonological differentiation follows metonymy, in response to further dissemination and lexical assimilation of the primitive reflex, may underlie the doublet formation seen in the Tatar pairs *böyek/biyek*, *olug/olı*, and *tugrı/turı*.

Azerbaijani *gışla*, Turkish *kışla* 'barracks' (no. 3), may be regarded as a modern specialization of the classical *gışlag* 'winter pastures,' i.e., where nomadic troops were quartered before a campaign.

The two Russian loans (B1-2) show clear phonetic reduction corresponding to lexical specialization of the loanword in a vernacular context. *Gezit* is newsprint used to roll the homemade "makhorka" cigarettes, while *zood* 'thoroughbred horse, pedigreed animal' is a product of economic planning immediately intelligible and useful to a pastoral Kirgiz.

The remaining four loans, from Persian, likewise illustrate the vernacularization of an imported *mot savant*. The *akın* 'bard, minstrel' is for the Turkmen tribesmen the preserver, interpreter and transmitter of their largely oral cultural tradition, as the *axund*, the Islamic legist (in practice often a semiliterate village teacher), represents the urban literate tradition. Similarly the

vowel-final variants of no. 4 (Uz. and Tk. *usta*, Tj. *usto*) denote a master craftsman, skilled worker or independent tradesman; whereas the *Fremdwort* reflexes (Uz. *ustoz*, Tj. *ustoz* ~ *ustod*, Tk. *üstat*) refer to a schoolmaster, professor, savant, musician, or other professional expert. Both may function as appropriate adjectives, epithets, or terms of address, in which case the high-style epithet generally precedes the name (as in Persian), and the vernacular epithet is postposed (as in Turkish). The Uzbek-Tajik and Azerbaijani-Turkish reflexes of classical Persian *pādšāh* (B5) show a devaluation typical for terms of rank in the region. The Uzbek vernacular form *pošša* is a stage further differentiated, phonologically, than the Tajik *poššo*. Significant again is that such forms of titulature are always construed as a Turkish noun phrase (i.e., left-branching) even where the contextual language may be Persian or Tajik (right-branching), e.g., *Tuta poššo*, *Zāl paša*, *Rostam soltān*, *Ibrohim xūja*.

Persian *xwāja*, the etymon of three doublet pairs (B6), was originally a term of respect for a literate bourgeois secular figure of some public or official standing—a merchant, poet, bureaucrat, scholar or court eunuch, according to the time and place—and was construed as a Persian (i.e., right-branching) noun phrase (*xwāja Hafez*, etc.). Among the Uzbeks and Tajiks of the Oxus Basin, *xoja* denoted until recent times a member of a local aristocracy, reputedly descended from the Arab conquerors of the region; as a title it had a (Tajik) vernacular variant *xūja*, evidently of Uzbek inspiration, since this is now the only form recorded for (literary) Uzbek (cf. Ma"rufov 1981). The Hindi alternates represent a similar process of sociolectal specialization: *xawaja* 'merchant' is a literate spelling pronunciation of Persian *xwāja* (where the *w* was already a historical relic at the time of the borrowing), since its referent was the embodiment of literate Persianate secular culture in northern India; *xoja*, reflecting the spoken Turkish pronunciation of the rulers of the same area, refers appropriately to one of their court functionaries.

Note that none of the above epithets constitutes a doublet pair in the language of origin, Persian. The well-known Turkish variant "pasha," transmitted to Arabic as *bāšā*, does not exist in Persian (or at least has not surfaced in literature or in the standard spoken language); it perhaps evolved in Anatolia during Rum Seljuk or early Ottoman times (12th-14th century) or in the Zagros frontier region by way of Kurdish or another nonliterary language. No. 4 comes closest, since a phonetic alternation *ostād* ~ *ostā* has been

evidenced in literature for the past thousand years, and *ostā* may now be characterized as a vernacularism; however, this does not correspond to a systematic semantic distinction between the professional and the skilled worker such as is clear in the Turkic languages and Tajik.

Of the eleven Arabic loans, seven of the alternates listed on the right may be classified as examples of vernacularization, though the individual techniques differ. These range through a change from abstract quality noun to concrete type noun (C2) or devalued adjective (C4, 5 and 10), from general to particular noun (C9), from poetic to prosaic (C6), and from particular to general (C11)—though the general term ‘power, force’ is more appropriate to Kazakh society than the alien ‘government.’ Other changes we might identify are from the objective ‘notification’ to the subjective ‘knowledge’ (no. 7; from an etymon meaning ‘information, data’), and simple lexical specialization (C3 and 8). Phonological indices of vernacularization are particularly clear in this category: loss of an initial or internal consonant (C1-5, 7, 10), change from original *m* to *b* (C6), and vocalic assimilation in accordance with rules of vowel harmony (C9).

The phonetic distinction *tamyiz/temiz* (C10) most likely existed in Persian at one time (though I have yet to find literary evidence), since the whole semantic range (‘distinction→decent→clean,’ as in Turkish) has now devolved upon a single form, viz. the vernacular *temiz*, rather than the classical *tamyiz*, even in literary Persian.

The distinction sketched under no. 9 is demonstrated in idioms such as Tk. *bu suretle* ‘in this case’ vs. *surat asmak* ‘to make a face, grimace.’ The doublets in no. 8 are derived from respective specializations of a single Arabic action noun loan *naql* ‘transportation, transmission, tradition’; the product noun reflex of the sense ‘(oral) transmission’ becomes ‘traditional tale.’ Loan forms *naql* +V exist in virtually all languages of the Islamic area, expressing most of this semantic range; but only in Azerbaijani Turkish, apparently, has the split been acknowledged phonologically.

The class of some 1,500 loanwords originating as Arabic substantives in the feminine ending /at/ ~ /a/ (which may be either a suffix or an integral part of the morphological pattern) were definitively lexicalized in -at or -a on induction into Persian, not on the basis of their syntactically-conditioned alternation in Arabic (which is no longer relevant), but in accordance with their semantic categories in the Persian lexicon. A number of those inducted in -at have marked their semantic expansion by forming a

doublet in *-a* while preserving the variant in *-at* for the original or a differently specialized sense. This device was perpetuated, and even expanded in scope, when these loans were in turn transmitted to Turkic or other vernaculars within the Persian cultural sphere of influence (Perry 1984b).

The eight examples of doublet formation in this particular class that are listed in section D of the Table are not found among the cognate Persian loans, all of which end in *-at*. As may be seen from the three examples cited earlier, the semantic differentiation here is of various types, and in the majority of cases (D1, 3, 6, 7, and 8) is more complex than in the previous categories. Insofar as doublets are selected for different collocations, they may be said to be syntactically as well as semantically conditioned. Thus the collocation 'consisting of' (D3, e.g., Tk. *-dan ibaret*, Tj. *iborat az*) preserves the classical Perso-Arabic loan reflex, while the independent count noun 'expression, phrase, idiom' selects the reprocessed form in *-a*. In literary Tatar (and to a less systematic extent in Uzbek and Tajik) the literary forms *xikeyat* and *hikoyat* are appropriate to (a) the action noun functioning as a nominal, 'narrating, narration' and (b) the high-style instance/product noun 'parable'; whereas the forms *xikeya* and *hikoya* are selected for (a) the reverbalized form of the action noun, as Tt. *xikeya söle-*, Uz. *hikoya qilmoq* 'to narrate, tell' and (b) the everyday modern instance/product noun 'story, tale' (Perry 1984a:278).

In the last three items, the *-a* form is similarly reserved in every case for the reverbalization, while in two instances (6 and 8) the *-at* form represents the nominalized verb phrase: thus in a Tajik calque on Soviet Russian 'they maintain labor discipline' is *intizomi mehnatro rioya mekunand*, whereas the nonfinite phrase 'maintenance of labor discipline' is *rioyat-i intizomi mehnat* (Perry 1984a:274). Uzbek and Tajik *rivoyat* denotes an Islamic responsum, i.e., a written judicial decision, and is thus clearly a high-style, literary reflex; Tatar *rivayat* 'story,' on the other hand, is more vernacular than *rivaya*, which in addition to its reverbalized use means 'version, recension.'

The correspondence between *-at* and *-a* in terms of literary vs. vernacular, general vs. specialized, nominal vs. verbal, is not absolutely consistent. The opposition in Tajik and Uzbek between the literary *jamoat* 'community, congregation' and the modern vernacular *jamo'a* (standard Uzbek *žamo'a*) 'rural council' (Russian *sel'sovet*)—and, by synecdoche, 'chairman of a *sel'sovet*' (D4)—is an excellent example of the expected direction of lexical specialization and vernacularization in the nineteenth and early

twentieth centuries. *Jamoa* is attested as denoting successively a study group at a Bukhara *madrasah*, the Emir of Bukhara's consultative assembly, a village, and a *sel'sovet* or its chairman (cf. Ma"rufov 1981). On the other hand the quasi-adverbial, predicative *kifoya* 'enough, sufficient(ly)' (D5) is semantically analogous to two adverbial *-at* forms, *goyat* and *iborat*; the explanation of its perhaps anomalous *-a* form most likely lies in its derivation from a frozen Arabic collocation, *bi-l-kifāya*, lit. 'with sufficiency,' rather than in any independent differentiation from *kifoyat*—i.e., both reflexes are *Fremdwörter* in origin, probably borrowed at different times for their different purposes (cf. English *person* and *persona*, or *influence* and *influenza*).

In fact, the diachronic perspective, so poorly documented in the case of most of these loans, would reveal several instances where overlapping reborrowings mask the internal dynamics of doublet formation. One instance where the phonological history is clear enough to untangle some of the skeins is that of the Tatar triplet *xikeyat/xikeya/ekiyet* (D1). This has been noted at least twice, but only as a doublet (Axmet'janov 1978:242; Scherner 1977:38-39, 56). The probable course of triplet formation, and the place of cognate reflexes such as Chuvash *ekiyet*, may be summarized as follows. The ultimate etymon is Arabic *ḥikāya*[t] 'narrative, story.' The provenance of all subsequent loan forms is via literary Persian *hekāyat* 'narrative; parable, anecdote' (from at least the early 11th century). The earliest form borrowed in Tatar is *ekiyet* '(fairy)tale, (cock-and-bull) story, nonsense'(13th-14th century), as is shown by its having undergone the greatest degree of sound and meaning change. This was directly borrowed into Chuvash in the sense 'mocking song, satirical ditty'—probably before it definitively acquired its pejorative sense in modern Tatar. In the Uzbek-Tajik lexical continuum, where—as in Turkish—the *-at* reflex historically preceded the *-a*, the latter marks a specialization subsequent to borrowing; the influence probably proceeded from the Turkic language to Tajik, since there is no literary evidence for such a development in any Persian dialect before the last century. In Tatar, the forms *xikeyat/xikeya* (closely imitating Perso-Turkish literary forms) were evidently borrowed several centuries later than *ekiyet*; the *-a* reflex, showing the reverbalized form characteristic of Turkish, Uzbek and Tajik, was probably borrowed from the Uzbek-Tajik continuum, since Kazan was strongly influenced by the Persianized Chaghatay (later Uzbek) of the Bukhara *madrasahs* from the sixteenth to the nineteenth century. The *-at* reflex in Tatar, evidently a *mot savant* with its scholarly restoration of the

Classical form and neutral meaning, either shares the same provenance or, more likely, was a nineteenth-century borrowing from the newly-influential Ottoman Turkish.

Thus the listing above (for Tatar) recapitulates an ascending order of stylistic register and an increasing approximation to the original *Fremdwort* form, as well as the (reconstructed) historical development of this loan complex; whereas in a simple progression (such as the Turkish *hikayet-e*, or most of the doublets in section C) one would have expected the *Fremdwort* form to reflect the highest register (classical-literary) and the earliest borrowed form. (The fact that the more specialized or vernacular alternants in C1 and 2 more closely approximate Persian pronunciation than their doublets with initial *g* is coincidental: the *g* is derived from a literary representation of Arabic 'ayn, and is thus a high-style device.)

An English analogy to this back-to-front morphology as a result of reborrowing might be the pair *detent/détente*. *Detent* 'mechanism that temporarily keeps one part in a certain position relative to another'—in its best-known manifestation, the notch in the scaling slot of an audio equalizer—is the earlier loan (17th century) and the more concrete concept, and is phonologically fully assimilated; nevertheless it is the more rarely encountered and highly specialized of the two—a declared *Fachwort*. *Détente* 'relaxation of (international) tension' is later (ca. 1905), more abstract, and with its imitated French pronunciation and written accent is an unashamed *Fremdwort*; yet in terms of current usage it is the more widely known and used—a vernacularized buzzword.

In attempting to identify doublets one must also beware of phonetic coincidence, alteration by association, and loan blending. The opposite process to doublet formation—a convergence of semantically and phonetically distinct, though similar, items—may be observed before the fusion is complete and give the illusion of a doublet pair; English 'flaunt' as a substandard malapropism for 'flout' (from a different source) has not yet entirely ousted the latter from educated use. Similarly, the second doublet of the Turkish "pair" *kâfir* 'unbeliever' vs. *gâvur* 'Christian (dog); cruel, beastly' probably does not result from a vernacularization of the first (contra Brands 1973:47), but derives from Persian *gabr*, *gavr* 'Zoroastrian; non-Muslim, infidel,' or at best from a contamination of this by Turco-Arabic *kâfir*. Again, the Tatar "pair" *gazap* 'judicial torture' vs. *azap* 'torment' (Axmet'janov 1978:242) certainly resembles the split *gazamat/azamat* (C2, both <Arabic 'azamat 'greatness'); however, it is more likely an

embryonic blend of the Perso-Arabic literary loan *gāḏab* 'wrath' (as in the common collocation *mir gazab* 'lord of wrath,' i.e., the state executioner) and *'azāb* 'torment, (divine) punishment.' The separate meanings are apparently in the process of collapsing, but the forms are still distinct.

Without some statistical comparison, it would be rash to speculate that the Turkic languages, and especially those of Soviet Asia, have employed doublet formation as a lexical evolutionary strategy to a greater extent than other languages. It does emerge, however, that at least among Arabic feminine-ending loans the numbers are slightly greater, and the results more varied, than among doublets so formed in Persian, where the technique originated, or in Urdu, a recipient of the same lexical fund (Perry Forthcoming). It is also intuitively certain that Arabic loans in Turkic languages have more frequently been subjected to a phonetic-semantic split by means other than the feminine-ending dichotomy than in Persian or Urdu (Arabic itself is comparatively rich in homonyms but virtually bereft of doublets). Whether doublets formed from loanwords of other languages or from native funds are more frequent overall in the Turkic languages is doubtful; but there can be no gainsaying that doublet (and triplet) formation in general has been a particularly productive lexical strategy in these languages. What they have in common (and to varying extents with Tajik, Dari, Baluch, Pashto, and Malay, for example) from a sociolinguistic perspective is that they were—as some still are—protoliterate languages forced to assimilate rapidly the essentials of an alien literate culture with an intricate political and social ideology. Originally this was Persian Islam, subsequently Russian Communism. Lexical expansion by such simple, economical, and versatile methods as doublet formation would seem a logical response to this challenge.

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THE ASSIMILATION OF RUSSIAN VERBS OF MOTION IN THREE KARELIAN DIALECTS

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1. In a recent study of the verbs of motion in the Kalinin dialect of Karelian (previously known as Tver' Karelian) it was shown that this dialect is experiencing the assimilation of various prefixed Russian verbs of motion to the Balto-Fennic system; the Karelian system remains largely unchanged, but is being complemented by the addition of the new elements from Russian (see Pugh Forthcoming). The key to this synthesis is clearly the Russian verbal prefix: by means of verbal prefixation, a feature unknown in Balto-Fennic, a borrowed Russian verb can sometimes express specific concepts more economically than the corresponding Karelian verb can. This paper compares the assimilation of prefixed Russian verbs of motion in the Kalinin, Tixvin, and Olonetsian dialects of Karelian. The first two are referred to in Russian as *sobstvenno karel'skij*, or 'Karelian proper,' while the latter is known as *livvikovskij dialekt*, in Finnish *aunus*. Three published collections of texts were used for our analysis (Makarov 1963, Rjagoev 1980, and Makarov/Rjagoev 1969) as well as the 25 texts appended to Rjagoev's grammar of Tixvin Karelian (Rjagoev 1977). The analysis will show in what way the process of synthesis is similar in the three dialects, and how it differs; both aspects of the question will help shed some light on internal changes that are taking place in the Karelian system.

The Karelian verbs of motion most commonly used in the texts are *tulla* and *mennä/männä*: *tulla* may express 'coming' as well as 'going,' and occurs somewhat more frequently than *mennä/männä*; the latter may be described as the most neutral verb of motion in Karelian, the general meaning of which is simply 'to go.' Other verbs express specific nuances or kinds of motion and are therefore not found as often: these include *ajua* and *ajella* 'to go by vehicle,' *astua/aštua* 'to walk,' *käwdä* and *kävel'l'ä* 'to walk habitually, to frequent,' and *l'äht'ie* 'to leave; to set out.' It is this set of verbs that is being complemented and expanded by the addition of new elements from Russian.

2. In all three dialects the Russian verb that forms the basis for the borrowings is the determinate *idti* rather than the indeterminate *xodit'* (a few exceptional forms with *-hod'i-* are discussed below); the new Karelian forms may express motion by foot as well as by

means of a vehicle. Never is a Russian prefix borrowed and used with a native Karelian verb of motion. Regarding the structural assimilation of these verbs, the verb forms are fully adapted to the Karelian conjugational system, as expected, occurring with Karelian desinences to express person, tense, and number. In one regard, however, the structural assimilation to the native system is incomplete: while most verbs borrowed from Russian have one basic stem in Karelian from which all forms are derived, the verbs of motion do not. The vast majority of assimilated Russian verbs in Karelian occur with stems based on the Russian nonpast, and are found with one of two stem-type classifiers, either *-Vj-* (vowel + *-j-*) or *-i-*. It is these classifiers that determine which Karelian conjugation type a borrowed verb will conform to. This system may be illustrated by the following verb forms:

duwmaj- (<i>-Vj-</i>):	duwmaičēn	'I think'
	duwmaičiimmo	'we thought'
zavod'i- (<i>-i-</i>):	zavod'iw	'he/she begins'
	zavod'iimmo	'we began'

(These examples from Olonetsian are typical of all three dialects; cf. Pugh 1987.)

With the verbs of motion, however, there are two competing stems: prefix + *-idi-* (from the Russian non-past, as expected) and prefix + *-j-*; compare: *uid'i* 'he/she left' and *ui* 'she left,' both of which are attested in Tixvin. Although it sometimes appears that the formation of specific verbal categories requires just one or the other stem (e.g., *-idi-* for the infinitive and the simple past tense, *-j-* for imperatives), there are just too many exceptions when both occur in the same environment, as in the examples just cited, to be able to determine a rule for their occurrence. In some instances, it appears as though the forms in *-d-* and *-j-* are being adapted to the Karelian system of consonant gradation, where *-d-* is a marker of the strong grade, *-j-* of the weak. Compare:

uijiin 'I left' — uidi 'he/she left'
 proijin 'I went across' — proid'ii 'he/she/it passed'

But alongside the last form cited we find also *proijii* 'it passed.' Clearly, then, the choice of stem is still in a state of flux. The existence of a root *-j-* in Karelian is most likely traceable to the infinitive form of the prefixed Russian verbs in which the *-d-* of the non-past is lost: *u-j-ti*, *pro-j-ti*, etc., in which *-j-* is interpreted

as the root after the prefix and infinitive marker - *ti* are separated from it.

3. The statistical data on the occurrence of Russian prefixed forms in the three dialects are as follows:

	KALININ	TIXVIN	OLONETSIAN
Prefix: u-	17x	72x	4x
pro-	19x	48x	28x
do-	9x	4x	---
vi-	22x	7x	---

The following prefixes may be interpreted as statistically unimportant:

pere-	1x	1x	1x
pod-	1x	2x	---
za-	1x	---	---
ob-	---	1x	---
TOTALS:	70	135	33

The first thing one notices about this table is the small number of prefixes that is current in the various Karelian dialects. The only prefixed verb of motion that appears to have become equally important in all three is the one with the prefix *pro-*: the verb *proid'ia/proid'ie* is used in these dialects to express 'going through,' 'passing,' as well as 'crossing.' The latter concept is usually expressed in Russian by the prefixed verb *perejti*, a form that has not taken root in these dialects; the use of the verb *proid'i-* to express 'crossing' in Karelian (and hence the lack of verbs of motion with *pere-*) may be attributed to a generalization of the prefix *pro-* to include all expressions of motion over space and time. Compare the verbs of motion in the following well-known proverb corresponding to Russian *žizn' prožit'* — *ne pole perejti* cited in two of the dialects:

Kalinin: igä el'et't'avä ew poikki pellon projittava (Makarov 1963:85)

Olonetsian: igä el'ia, ei ku peldo poikki proid'ia (Makarov/Rjagoev 1969:69)

Next to *pro-*, the most common prefix found was *u-*, the general meaning of which is 'to leave.' The widespread use of this prefix

cannot simply be explained by the general nature of its meaning or the lack of a suitable corresponding verb in Karelian (both of these criteria do apply to the prefix *pro-*). Instead we have to look at the Karelian system itself: the verb 'to leave' in Karelian, *l'äht'ie* (Finnish *lähteä*), has a secondary meaning 'to set out (for),' corresponding roughly to one of the meanings of the Russian perfectivizing prefix *po-*. It can appear alone, in which case it may be translated into Russian as *pojti*, or it can occur with another Karelian verb of motion, e.g., *l'äht'ie aštumah*, Russian *pošagat'*. It appears then, that a primary motivation for assimilating the Russian prefix *u-* must be a weakening of the meaning 'to leave' — or conversely a strengthening of the meaning 'to set out (for),' in Karelian *l'äht'ie*. In fact most of the attestations of this verb in all three sets of texts do express the latter meaning, creating the conditioning necessary for the adoption of the verb *uid'ie* 'to leave.'

Because the inception of motion, i.e. 'setting out,' is expressed by *l'äht'ie* (as well as by the verb *rubie* 'to begin'), there is now no need for Karelian to adopt a Russian verb of motion with the prefix *po-*: it does not occur once in the texts analyzed. One apparent occurrence of *po-* is found in a Tixvin text (Rjagoev 1977:249), but rather than representing the Russian prefix *po-* it is in reality the prefix *pod-* after consonant cluster simplification: *podhod'i* > *pohod'i* 'approached.' The intermediate stage in which *pod-* experiences devoicing of final *-d* is attested in Kalinin: *pothod'iw* 'approaches (*podxodit*)' (Makarov 1963:186). Apparently the prefix *po-* is considered semantically empty by Karelian speakers and so is not likely to be assimilated as easily as *u-* and *pro-*.

4. In the same way that the semantic connotations of *pro-* prevent active incorporation of a verb of motion with *pere-*, in Kalinin and Tixvin (especially the former) the prefix *do-* can express 'approaching' as well as 'reaching:' thus the Russian prefix *pod-* becomes unnecessary; as we see in the table above, *pod-* only occurs three times in all the texts analyzed. In terms of the total number of borrowed verbal forms, *do-* and *vi-* do not yet play as large a role in Tixvin as they do in Kalinin, while they have yet to be a factor at all in Olonetsian. The seven occurrences of *vi-* in Tixvin do indicate, however, that the use of this prefix may be on the rise, e.g., *viid'i* 'he/she went out.' If this is the case, we might be able to draw some of the same conclusions that came out of our earlier study on Kalinin Karelian: a slight weakening of the elative (or 'out of' case) may be taking place in these two dialects,

motivating the assimilation of an 'out of' prefixed verb of motion. Such a supposition is supported by the fate of the elative in Veps and the Ludic dialects of Karelian, in which the forms of the elative have syncretized with those of the inessive, or 'in' case (*Osnovy*: 57; Zajceva 1981:181-2).

In addition to the prefixed forms mentioned above, one verbal form occurred in a Tixvin text consisting of *iz-* 'out of' prefixed to a Karelian reflexive form of the root *-id'i-*: *izoid'ieččo*. The Russian verb *isxodit'*/*izojti* expresses 'to issue from,' and as an intransitive verb has no reflexive form. The new Karelian verb is defined by Rjagoev as *dostanetsja*, or 'is obtained' (Rjagoev 1977:253). Only one instance was found in which an unprefixed Russian verb of motion was used in the texts, and it happens to be one of five attestations of *xodit'*; it is used as emphasis, as if to explain a preceding Karelian verb referring to the act of walking: *...jo rubei kävel'emäh jo hod'imaa* (Tixvin, Rjagoev 1980:312) '...already began to walk....' The only other attestations of *xodit'* are as follows: once with the prefix *ob-*, twice with *pro-*, and once with *po-* (< *pod-*: see above); all of these forms are found in Tixvin texts.

5. The complete lack in the Olonetsian texts of two of the four most common prefixed verbs leads us to ask why all of the dialects would not assimilate all of the same prefixes. In the case of Olonetsian, the answer is most likely a simple one: of the three dialects studied, this one has been subject to strong Russian linguistic influence for a much shorter period of time than the others. Most of the territory where Olonetsian Karelian is spoken only became part of the Soviet Union at the end of World War II, whereas the Kalinin and Tixvin Karelian speakers have been deep in Russian territory for three centuries. It is probable that (eastern) Finnish has played a role in the maintenance of the Olonetsian status quo, especially where the status of the elative case is concerned: the conditioning that would be necessary in order to adopt verbs with the prefix *vi-* simply does not (or perhaps not yet) exist. Similarly, the relatively even distribution of the various prefixed verbs of motion (with *u-*, *pro-*, *do-*, *vi-*) in Kalinin Karelian as compared with Tixvin may be attributable to the location of these two dialects relative to one another within Russian linguistic territory: Tixvin Karelian is spoken in the southeastern Leningrad *oblast'* while the Kalinin dialect is found in the Kalinin *oblast'* nearer to Moscow. It is nevertheless striking, given the geographical distribution and the different histories of the three dialects, that the similarities between them, in this case the

tendency to adopt verbs of motion with the prefixes *u-* and *pro-*, should be so strong. From this we may infer that the semantic shift taking place in the verb *l'äht'ie* is widespread, and that the assimilation of verbs with *pro-* is answering an apparent need felt by the Karelian system.

In conclusion, it should be pointed out that many of the observations just made are not new; most of them resulted from the earlier study of the Kalinin Karelian verbs of motion mentioned above. What the present analysis has served to do is to provide a broader base for, and to lend support to, the conclusions reached in that study by expanding the data base to include the Tixvin and Olonetsian dialects. The changes taking place in Karelian as a result of prolonged contact with Russian without a doubt go beyond mere lexical borrowing: elements from the Russian morphological system are entering the Karelian system, apparently motivated by internal changes or shifts within that system.

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THE INTERFACE BETWEEN GERMAN AND LATVIAN: LOANWORD PHONOLOGY AND MORPHOLOGY

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1. Introduction. In terms of strict genetic relationship, German and Latvian are quite distantly related: although both are Indo-European languages, one belongs to the Germanic branch, the other to the Baltic branch; one is a member of the centum group, the other of the satem.¹ As a result, we find that the structural differences between these two languages were originally as great as those now existing between English and Russian. However, over the last thousand years extensive contact between the two has influenced the lexicon and phonological structure of Latvian to such an extent that there is now a much greater difference between Latvian and its closest relative, Lithuanian (which did not have the same German influence) than between equally closely genetically related languages like Polish and Czech. Although German as a whole has not been influenced by this long-standing contact, we do find that Baltic German (BG), a dialect of German that was widely spoken in Latvia until the Second World War, did show some significant influences from Latvian.

2. History. This extensive contact between the two languages began in the late 1100s when an organization of German crusaders called the Knights of the Sword conquered a small part of what is now central Latvia and founded the city of Riga in 1201. Eventually they were absorbed into another German crusader organization called the Teutonic Knights, and by the mid 1300s the Teutonic Knights controlled all of present day Latvia and Estonia. Simultaneously with these conquests, the pagan Latvians were converted by German missionary priests. At the same time, merchants and traders, belonging to the Hanseatic League, set up trading routes and settled in the area. These German settlers were primarily from the area of Lübeck, and thus, were speakers of Middle Low German. Low German continued to be the dialect used by much of the German population in Latvia until the end of the 1700s. High German first began to be used in the 1600s, but only as a church language in the now-Protestant churches. However, the prestige, usage, and influence of High German increased throughout the 1700s. Although the territories of Latvia and Estonia subsequently came under Polish, Swedish, and, eventually Russian control, the German nobility continued to

effectively administer the region, and control commerce and education up until the end of the 19th century. During the 18th and 19th centuries, a dialect of German developed in these territories which was called Baltic German. This dialect, spoken by the German population of Latvia and Estonia, can best be described as a mixture of Low and High German, with elements of Latvian, Estonian, Russian, and some other languages (Mitzka 1923:10).

3. The social relationship between Latvian and Baltic German. The relationship between Latvian and Baltic German could very well be described as a classic substratum-superstratum relationship. German must be considered the superstratum language, as it was the language of the dominant population. For one thing, the ancestors of the Baltic Germans, namely the Teutonic Knights, were military conquerors, and all of the administrative and political control of the area was in their hands. In addition, German had considerably more prestige: the German nobility was cultured and educated, while the Latvians were, for the most part, illiterate peasants. In this sort of situation, one would expect the superstratum language, German, to exert a considerable influence on the substratum language, Latvian, and that is precisely what one finds. It is this considerable influence, particularly on the phonological system of Latvian, which is the major focus of this paper.

On the other hand, the Latvians were undeniably in the majority. In addition, German households almost invariably had Latvian servants. As a result, most children of Baltic German parentage had Latvian nannies, and many did not begin to speak German until they were four or five, having learned Latvian as their first language.

4. Influence of Latvian on Baltic German. As a result, Latvian also had a significant amount of influence on Baltic German. For example, both auditory linguistic descriptions (Lehiste 1965:63) and acoustic experimental evidence (Hentrich 1925) indicate that Baltic German had long consonant distributions like those found in Latvian. In Latvian we find that long voiceless obstruents occur predictably in intervocalic position after a short vowel. Thus, [mat:i] 'hair (nom. pl.)' has a long intervocalic *t*, while [ma:ti] 'mother (acc. sg.)' has a short intervocalic *t*, because it follows a long vowel. Experiments done with Baltic German showed that voiceless stops in intervocalic position after a short vowel (e.g., Nacken 'neck') were considerably longer than those after a long vowel (e.g., Haken 'hook,' and that this same distinction did not occur in Low German. As well, High German

has only short consonants in both of these environments. Clearly, this distribution of long consonants in Baltic German was influenced by the predictable allophonic rule of Latvian.²

In addition, Baltic German incorporated a large number of vocabulary items from Latvian; note the following examples in (1):

(1)	Latvian source	gloss	Baltic German loanword
	acīpa	eye (dimin.)	Atzing
	kuokle	Latvian zither	Kohkel
	lupata	dust rag	Luppat
	naudīpa	money (dimin.)	Nauding
	pasaciņas	fairy tales (dimin.)	Passazinger
	purvs	morass, swamp	Purwe

However, even more indicative of the strong influence of Latvian is that Baltic German had also borrowed a couple of affixal morphemes which were used productively with German roots as well as in Latvian loanwords. For example the Latvian suffix *-nieks*, which is an agent-forming suffix, occurs productively in Baltic German (usually with the pronunciation *-neck* or *-neek*) in words such as *Ankerneek* 'raftsman.' Similarly the Latvian diminutive suffix *-ipš*, *-īpa* also had a productive distribution in Baltic German: for example, it appears as *-ing* in words like *Mamming* 'mommy,' and *Anning* 'little Anna.'

5. Influence of German on Latvian. However, the influence of Low German, High German, and, eventually, Baltic German on Latvian was probably even more considerable, to the extent that by the end of the 19th century the phonological system of Latvian had itself undergone a number of changes. The data provided below will illustrate the majority of these changes. All of the data are presented in orthography, with the exception that some Latvian and Low German forms have additional markings to distinguish sounds which the orthography does not distinguish.

5.1. Morphologization of German Loanwords in Latvian. When a word is borrowed into Latvian it must first be assigned to one of the two genders, masculine or feminine. In Latvian the overwhelming majority of feminine gender nouns end in a vowel in the nominative singular (specifically in *-a* and *-e*), while all masculine nouns end in a sibilant consonant (specifically the endings are *-s*, *-š* *-is*, and *-us*). Since this generalization is overwhelmingly true (there are only a few dozen exceptions), it is

not surprising that it plays a part in the nativization of loanwords. Loanwords from German which end in a vowel are twice as likely to be assigned to the feminine gender in Latvian as compared to masculine nouns; some examples are shown in (2) below:

(2) German source words which end in a vowel:

German source	Latvian loan	gloss
LG klumpe	klimpa	dumpling
LG tūte	tūta	bag, sack
HG der Tee	tēja	tea
HG die Jacke	jaka	jacket
HG die Mode	muode	fashion, mode

Similarly, German nouns borrowed into Latvian which end in a consonant are more likely to be assigned to masculine gender; note the illustrative examples in (3):

(3) German source words which end in a consonant:

BG Dutz	ducis	dozen
LG bür	būris	cage
LG buck	buks	(roe)buck
HG das Pulver	pulveris	(gun) powder
HG die Post	pasts	mail, post
HG der Ingwer	ingvers	ginger

Another factor also may play a role in the assignment of gender: this is semantic association. Nouns borrowed from German which refer to male humans are invariably assigned to male gender, as seen in (4):

(4) Nouns which refer to male humans:

HG der Soldat	zaldāts	soldier
HG der Prinz	princis	prince
HG der Matroze	matruozis	sailor, seaman
HG der Meister	meistars	master
LG möller	melderis	miller
LG kaprāl	kaprālis	corporal
LG kaptein	kapteinis	captain

I have found only one example of a noun which refers to a female

human; this is the word meaning 'a cook' or 'kitchen maid.' This form also complies with this association between sex and gender: the word in Latvian is feminine (*ķekša*), as indicated by the *-a* suffix.

Finally, it appears that the gender of the noun in the source language may also play a part: the majority of nouns which belong to the feminine and neuter genders in German are assigned to feminine gender in Latvian,³ as shown in (5):

(5) Nouns which belong to the feminine or neuter genders in German:

HG	die Schaufel	šaufele	small spade, scoop
HG	die Tafel	tāfele/tāpele	slate, blackboard
HG	die Wanne	vanna	bath, tub
HG	die Würze	virce(s)	spices, seasoning
HG	die Suppe	zupa	soup
HG	das Gift	ģipte	poison
HG	das Kleid	kleita	dress
HG	das Los	luoze	lottery (ticket)
HG	das Möbel	mēbele	piece of furniture

Similarly, nouns which are masculine in German are somewhat more likely to be assigned to a masculine gender declension than to a feminine one; some examples are provided in (6):

(6) Nouns which belong to the masculine gender in German:

HG	der Grand	grants	gravel
HG	der Gips	ģipsis	gypsum
HG	der Sirup	sīrups	syrup, molasses
HG	der Teppich	tepiķis	carpet, rug
HG	der Thron	truonis	throne
HG	der Puder	pūderis	(cosmetic) powder
HG	der Punkt	punkts	period, dot

All borrowed nouns are assigned to some declension class or other in accordance with the principles which I have just outlined. Verbs, on the other hand, are exclusively assigned to the same conjugation class, namely the long *ē* class of the second conjugation. The second conjugation is the regular one, in that the majority of verbs belong to this conjugation.⁴ Note that all of the verbs borrowed necessarily end in *-en* in the infinitive and will

have -e as part of their stem conjugation in German. Since these -e vowel suffixes are most like the infinitive (and other endings) of the -ēt verbs in the second conjugation in Latvian, it is not surprising that this is the particular conjugation class to which they are assigned. Note the examples in (7):

(7) Borrowed German verbs:

LG	pōten	puotēt	to inoculate, vaccinate
BG	mūken	mūķēt	to open (with a lock pick)
HG	schmoren	šmuorēt	to stew
HG	wichsen	viksēt	to polish/go at energetically
HG	kämmen	ķemmēt	to comb

5.2 Phonological modifications which affect loanwords in Latvian.

5.2.1 Vowel substitutions. Once a noun or verb is assigned to a particular declension or conjugation class,⁵ we can say that it has been incorporated into the morphological system of the borrowing language. However, a word must necessarily also be incorporated into the phonological system of the borrowing language. The chart in (8) shows the inventory of sounds in Latvian as it was during this period of borrowing, that is, approximately from the 17th to the 19th centuries.

(8) Inventory of Latvian sounds (17th to 19th centuries)⁶

p	t	ķ	k	i	u
b	d	ģ	g	e	
	c	č		ē	
	dz	dž		a	
	s	š			
v	z	ž		ī	ū
m	n	ņ		ē	
	l	ļ		ē	
	r	(r)		ā	
		j			

In order for a borrowing language to adapt source words to its own phonological system, it must first replace those sounds which do not occur in the borrowing language with native sounds which are phonetically similar. First note that German has the front rounded vowels [ü] and [ö], which Latvian lacks. In loanwords,

Latvian replaces these sounds by front unrounded vowels of corresponding height, as shown in (9):

(9) German [ü] replaced by Latvian [i]:

HG	Schürze	širce	apron
HG	Würze	virce(s)	spices, seasoning
HG	Bürste	birste	brush
LG	kümmel	ķimelis	caraway seed liqueur
LG	mütts(e)	mice	woman's cap
LG	nücken	niķis	whim, caprice

German [ö] replaced by Latvian [e]:

HG	Möbel	mēbele	piece of furniture
HG	Röste	reste(s)	bars, grating
HG	Komödie	kumēdiji	capers, frolics
BG	kappsöcke	kapzeķe	sock
LG	söcke	zeķe	stocking
LG	kösch	ķēkša	cook
LG	ölje	eļļa	oil

In addition, at this time Latvian lacked both short and long [o] sounds. German long [o:] was replaced by the diphthong [uo] in the Latvian loanwords, while short [o] was replaced by one of the other short back vowels, that is, either by an [a] or an [u]; examples of these substitutions are provided in (10):

(10) Long [o:] in German replaced by diphthong [uo] in Latvian:⁷

BG	Soost	zuoste	gravy, sauce
LG	mōs	muozis	jam, fruit puree
LG	pōten	puotēt	innoculate/vaccinate
LG	jōk	juoks	joke
LG	kamsōl	kamzuolis	vest, jacket
HG	Matrose	matruozis	sailor
HG	Mode	muode	fashion, vogue
HG	Pistole	pistuole	pistol, gun
HG	schmoren	šmuorēt	to stew
HG	Thron	truonis	throne

German short [o] replaced by Latvian [a]:

HG	Forke	parka(s)	pitch fork
HG	Post	pasts	mail, post
HG	Soldat	zaldāts	soldier
HG	Doktor	dakteris	doctor

German short [o] replaced by Latvian [u]:

HG	Klotz	klucis	block
HG	Komödie	kumēdiji	capers, frolics

Finally, Latvian also lacks a schwa. This sound is spelled with an *e* in German and occurs in unstressed (and, therefore, usually in non-initial) syllables. This sound is replaced with either of the two short back vowels of Latvian, namely [u] or [a]:

(11) Schwa in German replaced by Latvian [u]:

HG	Muskel	muskulis	muscle
HG	Nummer	numurs	number
HG	Onkel	onkulis	uncle
HG	Zucker	cukurs	sugar
LG	trummel	trumulis	kettle
LG	dubbelt	dubbults	double
LG	masselen	masulas	measles

Schwa in German replaced by Latvian [a]:

HG	Meister	meistars	master
HG	Ziffer	cipars	number
LG	masselen	masalas	measles

Note the two possible pronunciations of the word meaning 'measles'; although the latter form (*masalas*) is standard, the other form (*masulas*) is a perfectly acceptable dialect variant.

5.2.2. Consonant substitutions. The previous section accounts for the major regular alterations in the pronunciation of vowels; in addition, a number of consonant alterations also occur. These primarily involve the replacement of source language fricatives. If you will note the consonant inventory shown earlier in (8), it will become evident that, with the single exception of [v], Latvian has only sibilant fricatives. German, on the other hand, has a number

of non-sibilant fricatives. In the first place, we find that German [f] is replaced in Latvian loanwords by the voiceless bilabial stop [p] as shown in (12):

(12) German [f] replaced by Latvian [p]:

HG	Fleck	pleķis	spot, stain
HG	Flinte	plinte	rifle, musket, gun
HG	Fraulein	preilene	miss (who gives self airs)
HG	Saft	zapte	jam, preserves
HG	Gift	ģipte	poison
HG	Ziffer	cipars	number
BG	Schuflade	šūplāde	drawer
LG	färlík	pērlīgs	nervous, sensitive
LG	gaffel	gapele	fork
LG	kartuffel	kartupelis	potato

Similarly, German voiceless palatal ([ç]) and velar ([x]) fricatives, which are usually spelled *ch*, are realized as voiceless velar stops in Latvian loanwords; note the illustrative examples in (13):

(13) German *ch* replaced by Latvian [k]:

HG	Gicht	ģikts	gout, arthritis
HG	Macher	makars	swindler, cheat
HG	Macht	makts	power, strength, authority
HG	richtig	riktīgs	real, very
HG	schwach	švaks	weak
HG	wichsen	vīksēt	to polish/go at energetically
HG	Kuchen	kūka	cake
HG	ach	ak	oh
LG	trechter	trekteris	funnel

On the other hand, the voiceless glottal fricative [h] is treated quite differently. In German, this sound is an allophone of the same phoneme as the voiceless palatal and velar fricative sounds. The [h] in German is always syllable initial, while the palatal and velar variants are always syllable final. However, in Latvian this sound is not replaced by some other consonant. Instead it is always deleted, as seen in (14):

(14) German initial [h] deleted in Latvian:

HG	Herz	ġrcs	heart (in cards)
HG	Haube	aube	woman's headkerchief
LG	hūk	ūka	Adam's apple
LG	hūr(e)	īre	rent
LG	hāng(e)	eņģe	hinge

5.2.3. Native processes and constraints which affect loanwords. We have now accounted for the major regular consonant substitutions which are necessary to adapt German loanwords to the phonological inventory of Latvian. However, these are not the only phonological accommodations which occur. In order to make a loanword fit into the phonological pattern of the borrowing language it is further necessary to modify loanwords to accord with allophonic phonological processes in the borrowing language. For example, Latvian has a synchronic phonological rule which, in native words, fronts and affricates velar stops before front vowels. Thus, we find that, at the time that these borrowings occurred, velar stops in Latvian only occurred before **non-front** vowels.⁸ In order to incorporate loanwords into this pattern, velar stops which occur before front vowels in loanwords are realized as palatal stops ([c] and [j]); examples which illustrate this are provided in (15):

(15) Velar stops replaced by palatal stops before front vowels:

HG	kämmen	ķemmēt	to comb
HG	Kürbis	ķirbis	pumpkin
HG	Kitt	ķite	putty
HG	Kittel	ķitelis	overall, smock
HG	Kork	korķis	cork
HG	kränken	krenķēties	upset oneself
HG	Nelke	nelķe	carnation
HG	Fleck	pleķis	spot, stain
HG	Bäcker	beķeris	baker
BG	muken	mūķēt	open (with a lock pick)
BG	kappsöcke	kapzeķe	sock
LG	söcke	zeķe	stocking
LG	kēde	ķēde	chain
LG	köksch	ķēkša	cook
LG	köke	ķēķis	kitchen
LG	kilke	ķilķens	flour dumpling

LG	kīwit	ķīvīte	lapwing/peewit
LG	nücken	niķis	mood, whim, tantrum
LG	sminken	smiņķis	make-up, rouge
HG	Spargel	spargēļi	asparagus
HG	Tiger	tīģeris	tiger
HG	Gips	ģipsis	gypsum
HG	Gicht	ģikts	gout, arthritis
HG	Gift	ģipte	poison
LG	wāge	vāģis	wagon
LG	örgel	ērģeles	organ
LG	gilde	ģilde	guild
LG	knagge	knaģis	clothes peg
LG	häng(e)	eņģe	hinge

Note also, that this sort of phonological process must apply after the initial substitution of similar native sounds for foreign sounds. This is clearly shown by the fact that a *k* which was substituted for a palatal or velar fricative is then subsequently altered by the process which palatalizes a *k* before front vowels; some examples of this are provided in (16):

(16) German *ch* first replaced by Latvian [k], then [k] replaced by palatal stop when followed by front vowel:

BG	Parch	parķis	fustian
HG	Teppich	tepiķis	carpet, rug
HG	sicher	ziķeris	energetic person
HG	Pfirsich	firziķis	peach
HG	Blech	bleķis	tin/rubbish

In addition, we find that certain processes which may apply to loanwords reflect the morpheme structure constraints of the language. In Latvian the alveopalatal [š] could occur word initially either before resonants or before palatal obstruents in native words. However, its distribution was restricted, so that it never occurred before [p] or [t]. In High German the alveolar [s] never occurs before [p] or [t]: instead one finds only the alveopalatal [š]. Thus, both German and Latvian have both alveolar [s] and alveopalatal [š] sounds in their consonant inventory, but the distribution of these sounds in words is quite different in each language. We find, as a result, that the alveopalatal [š] which occurs in German before [p] or [t] was

modified in Latvian loanwords: it was replaced by the alveolar [s] in accordance with the morpheme structure patterns of Latvian, as illustrated in (17):⁹

(17) German alveopalatal sibilant replaced by alveolar sibilant in Latvian before [p] or [t]:

HG	Spargel	sparģeļi	asparagus
HG	Spitze	spice	lace
HG	Student	students	student
HG	Strumpfband	strumbante	garter
HG	Strauss	strauss	ostrich
HG	Spinat	spināti	spinach

6. Changes in Latvian phonology as a result of borrowing. We find that the sheer weight of loanwords entering the language from German eventually took its toll on the phonological system of Latvian. For example, one now finds many examples of more recent loanwords which have retained an alveopalatal [š] before [p] or [t], as shown in (18):

(18) German alveopalatal sibilant is not replaced:

HG	Sprotte	šprote	sprat
HG	Spritze	šprice	spray
HG	Staat	štāts	state
HG	Stab	štābs	headquarters

In addition, dialect forms and more recent re-loans of older words also show alveopalatal [š] even in some of the examples cited in (17) above; note the alternate and later pronunciations of these words in (19):

(19) German alveopalatal sibilant is not replaced:

HG	Strumpfband	štrumbante	garter
HG	Spitze	špice	lace
HG	Spinat	špināti	spinach

Furthermore, these are not the only cases which show the influence of German loanwords on the Latvian system. For example, instead of replacing [f] with [p], more recent re-loans now occur with the original German [f]; note the examples in (20):

(20) German [f] is not replaced in newer re-loans:

		older	newer	
HG	Kaffee	kapija	kafija	coffee
HG	frisch	prišs	frišs	fresh
HG	Tafel	tāpele	tāfele	slate, blackboard
HG	Saft	zapte	zafte	jam, preserves
HG	Graf	grāps	grāfs	count, earl
LG	scheft	šepte	šefte	business, trade, deal

This German influence has also extended to the vowels. In particular, the short [o] which was regularly replaced by [a] or [u], now occurs commonly in re-loans as well as in newer loans; a few examples are shown in (21):

(21) German short [o] is not replaced in newer loans and re-loans:

		older	newer	
HG	Rosine	razīne	rozīne	raisin
HG	Sprotte		šprote	sprat
HG	Konfekt		konfekte	candy

Thus, primarily as a result of such changes,¹⁰ the inventory of Latvian sounds was expanded, until by the end of the 19th century and the beginning of the 20th, the inventory shown in (22) was the norm.

(22) Inventory of Latvian sounds (end of 19th century):

p	t	k	k	i	u
b	d	ķ	g	e	o
	c	ģ		ē	
	dz	č		a	
f	s	dž			
v	š	ž		ī	ū
m	z			ē	
	n	ņ		ē	
	l	ļ		ā	
	r	(r)			
		j			

7. Conclusion. As we have seen, Baltic German and Latvian have influenced each other to a large extent as a result of their long-standing contact. While Latvian has certainly influenced the pronunciation and lexicon of Baltic German, the effect of German

on Latvian has probably been even more widespread, which is exactly what one would expect when the language with the greater influence is the superstratum language, and the language more influenced is the substratum language.

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NOTES

¹This is an expanded and revised version of a paper delivered at the 5th International Conference on the Non-Slavic Languages of the U.S.S.R., May 13, 1987, at the University of Chicago.

² Since standard High and Low German both have only short consonants, I regard the existence of long consonants in Baltic German (in exactly the same environments where Latvian long obstruents occur) as the result of an innovation on the part of Baltic German that is a direct result of Baltic influence. However, Robert Austerlitz (p.c.) has suggested the possibility that Baltic German may merely have maintained an earlier Middle German

consonant length distinction under the influence of the Baltic languages.

³It is not immediately evident why German neuter nouns should become feminine nouns in Latvian. Of course, since there are only two genders in Latvian, the third German gender must go somewhere. Michael Dobrovolsky (p.c.) has suggested to me that this sort of gender assignment is a result of the fact that Latvians who were in contact with Germans during this time were, for the most part, bilingual. (It is certainly true that in the towns and cities where most contact occurred, the majority of Latvians would have been bilingual to some extent). Thus, since these Latvians would have had some knowledge of German, they would know what gender a noun is in German. Then, such a bilingual speaker would assign a word to the masculine gender in Latvian if it could be so assigned (i.e., if it was semantically male, or if it was masculine gender in German). If not, the word would be assigned to whatever gender was left over, i.e., the feminine gender.

⁴Native Latvian verbs of the second conjugation all have the diphthong *uo* or a long vowel (namely *-ā*, *ī*, or *-ē*) as part of their stem. Some examples are: *duomāt* 'to think,' *baruot* 'to feed,' *medīt* 'to hunt,' and *airēt* 'to row.' The German verbs in the data all belong to the last group. Furthermore, modern 20th century borrowed verbs (internationalisms, or verbs borrowed from Russian, English, German, etc.) all now fall into this class as well.

⁵Adverbs and adjectives have no options: adverbs will always have the suffix *-īgi*, while adjectives have a masculine or feminine ending (*-īgs*, or *-īga*) which agrees in gender, number and case with the noun that it modifies.

⁶In addition to the pure vowels, there were a number of diphthongs. Of particular interest to this paper is the diphthong which I have spelled *uo* (in Latvian orthography it is spelled merely *o*). Phonetically this diphthong begins as a high back vowel and gradually glides towards a low central position, as the lips unround.

⁷According to Endzelins (1938:27), Latvian *uo* corresponds to Greek, Latin, and Gothic long *o* and is derived from Indo-European long **o(w)*. It has been suggested that, at the time the borrowings in (10) took place, Latvian may not yet have undergone the sound change which diphthongized the original Proto-East-Baltic long *o* and, therefore, that in these borrowings German long *o* was replaced by Latvian long *o*, which only subsequently became *uo* in Latvian. I think that this is very unlikely. We consistently get *uo* in Latvian loanwords from Middle Low German (eg. 'onion' Latv. *sīpuols* < M.L.G. *sipolle*, 'school' Latv. *skuola* < M.L.G. *schole*), from (Modern) Low German (eg. 'innoculate' Latv. *puotet* < L.G. *poten*, 'joke' Latv. *juoks* < L.G. *jok*), and from (Modern) High German (eg. 'pistol' Latv. *pistuoļe* < H.G. *Pistole*, 'fashion' Latv. *muode* < H.G. *Mode*, 'lottery (ticket)' Latv. *luoze* < H.G. *Los*). The High German borrowings could not have been incorporated into Latvian much before the 1700s. It is very doubtful that Proto-East-Baltic long *o* became Latvian *uo* during or subsequent to the 18th century A.D. It seems much more plausible to suggest that long *o* in Middle Low German, (Modern) Low German, and (Modern) High German was replaced by native Latvian *uo* in a consistent manner over several centuries.

⁸For example, in native words there is an alternation between *k* and *c* [ts] in words like *ruoka* 'hand' and *ruociņa* 'little hand,' and between *g* and *dz* in words like *draugs* 'friend' and *draudzība* 'friendship.' Note that the alternation

in borrowed words is between *k* and *k* [c], and between *g* and *g* [j]. It appears that palatal stops may have come to be accepted as a sign of 'foreignness' in Latvian because of their occurrence in the Couronian dialect. See Steinbergs 1979 for a more detailed discussion of this point.

⁹It has been suggested that Latvian may have borrowed the words in (17) from dialects of German which had alveolar sibilants in these contexts. I think this is unlikely: historical evidence suggests that the majority of Latvian borrowings during and after the 1700s came from High German or Baltic German. Considering that most Latvians were of a fairly low socioeconomic status until the end of the 1800s, it seems unlikely that they would have acquired words like 'asparagus' or 'spinach' during Middle German times; instead, words like those in (17) were probably borrowed from Modern German. Since both (Modern) High German and Baltic German had alveopalatals in these environments, it is most likely that Latvian did, in fact, substitute an alveolar sibilant for the source language alveopalatal.

¹⁰No doubt influence from other languages such as Russian (which had [f] and short [o]) contributed to the change in sound inventory as well. Nevertheless, borrowings from German were greatly in the majority during this period, and, thus, were the primary cause of the change in sound inventory. Subsequent borrowings during the 20th century (e.g., internationalisms, and words from Russian, English, German, etc.) have further altered the inventory of Latvian: it now contains [o:], [h], [ç], and [x].

THE OLD ARMENIAN TRANSITIVE PERFECT RECONSIDERED

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The Old Armenian (OA) transitive perfect is characterized by the genitive of agent, the accusative of object (normally marked by the nota accusativi *z-*), and a periphrastic verb form consisting in the *-eal-* participle plus the third person sing. of the copula, e.g.,

- (1) *nora gorceal ê z-gorc* 'he has done the work'
**'eius factum est operam.'*

The example shows that the verb agrees neither with the agent nor with the object. This construction, however, occurs only in transitive sentences, intransitive and passive ones showing agreement of subject and copula with regard to person and number, e.g.,

- (2) *na ekeal ê* 'he has come,' literally like French 'il est venu,'
es ekeal em 'I have come,' French 'je suis venu,'
nok'a ekeal en 'they have come,' French 'ils sont venus,'
es teseal em (i nmanê) 'I have been seen (by him).'

In any case, the participle remains unchanged, due to the fact that Armenian normally does not inflect adjectives preceding nouns. Apart from the periphrastic perfect, the participle is also used as a *participium conjunctum*, e.g.,

- (3) *Mt.5,1 Ew teseal zžoŋovurdsn el i leaġn*
'And having seen the people he climbed on a hill,'
Mt.1,24 zart'uc'eal Yovsêp' ... arar
'Joseph, having got up, made...,'
Act.Ap.4,23 ew anti arjakeal ekin
'and having been freed from there they came.'

These examples demonstrate that in OA, from a synchronic point of view, the participle is indifferent as to diathesis, and that its active or passive value depends on whether the agent or the object is added in the genitive or the accusative case respectively. Since Middle Armenian times, the mere syntactical differentiation of diathesis has been replaced by an innovating passive formation in *-u/v-*, which indicates passive voice within the whole verbal system

(cf. Karst 1901:345 sqq.), e.g.,

- (4) act. asc'el < OA asac'eal 'having said,'
pass. kapvel versus OA kapeal '(having been) bound.'

At the same time, Middle and Modern Armenian do not any longer use the genitive of agent in the transitive perfect, but simply the nominative, e.g.,

- (5) na asc'el ê 'he has said,'
na kapvel ê 'he has been bound.'

This development in the later stages of the Armenian language seems to me of particular importance for the understanding of the OA construction of the transitive perfect.

Among the older explanations of the OA transitive perfect, the one given by Benveniste (1952) has been widely accepted. According to Benveniste, the OA construction is paralleled by the modern Romance or Germanic periphrastic perfects which use *have* as an auxiliary verb and therefore might be called 'possessive constructions.' In Benveniste's opinion, this is true also for the Old Persian type

- (6) manâ krtam astiy 'I have done,' literally 'by me is done,'

which he considers as an equivalent to a possessive utterance like:

- (7) *manâ pussa astiy 'I have a son,' literally 'mine is a son.'

Likewise, in OA we have a parallel construction of the transitive perfect and of possessive utterances, e.g.,

- (8) nora gorceal ê 'he has done,' Latin *'eius est factum'
nora handerj ê 'he has a garment,' Latin 'eius est
vestimentum.'

In Benveniste's view, the utterance *nora gorceal ê* as a whole is transitive, and therefore requires the accusative of object. The accusative of object, however, seems to me the weak point in Benveniste's theory when we look at the periphrasis with *have*, for instance, in French. Here we have agreement of participle and object as to gender and number, in Modern French restricted to sentences in which the object precedes the participle, e.g.,

- (9) le chien que j'ai vu vs.
la maison que j'ai vue vs.
les maisons que j'ai vues.

A backformation of these sentences would result in:

- (10) canis qui mihi visus est vs.
domus quæ mihi visa est vs.
domus quæ mihi visæ sunt.

Therefore, we should expect agreement of participle and object in the OA construction, i.e., the object is added in the nominative case. This is exactly what Benveniste postulates for Proto-Armenian, as he starts from an older construction:

- (11) *nora gorceal ê gorc (nom.!).

The only question not really answered by Benveniste is how the object could change from nominative to accusative case. Another difficulty is that a possessive construction requires a purely intransitive passive participle — a requirement emphasized also by Benveniste, but as the examples in (3) clearly show, the OA *-eal-* participle has active value as well, a fact that is strongly supported by the later development indicated in (4) and (5) above.

My own explanation (see below and Stempel 1983:68 ff.) starts from the same assumptions as Benveniste's does, i.e., that the *-eal-* participle is originally only intransitive-passive and that it occupies the same position that, for instance, in Latin is occupied by the IE **-to-* participle. The question whether or not we might call the OA transitive perfect a possessive construction is of minor interest, and merely a question of terminology. But it is clear as well that the Middle and Modern Armenian constructions (cf. (4) and (5)) are quite different from any periphrasis with *have*, because a distinction has been established between active and passive participle, leading to a transitive perfect like Russian *on sdelal delo* 'he has done the work.' Therefore, the only difference between Benveniste's view and mine is that I think that the OA construction no longer can be considered as a *have-* periphrasis, since the originally intransitive-passive participle has also assumed active meaning, which is responsible for the accusative case of the object.

A quite different view of things arises if we— as Weitenberg (1986)—consider the *-eal-* participle as originally indifferent with regard to diathesis, that is without any differentiation of active versus passive meaning with transitive verbs. Weitenberg (1986:12)

thinks that in the transitive perfect we have to start from an active participle which normally has its object in the accusative case, and that the genitive of agent is due to the impersonal use of the perfect like:

(12) *tueal ê z-arcat* 'n 'there has been giving silver,'

which is different from the passive construction

(13) *tueal ê arcat* 'n 'silver has been given.'

The lack of agreement between subject and verb in the transitive perfect induces Weitenberg to consider it as impersonal, the agent being occasionally added in the genitive case. He therefore assumes that not the object-accusative, but the agent-genitive is secondary and due to a nominalized participle which required an adnominal genitive. It must be said, however, that only the surface structure is impersonal and that, unlike really subjectless sentences (German "man-Sätze"), the agent is expressed, the type of no. (12) being rather rare. Weitenberg follows Vogt (1937) in assuming that the genitive of agent (or subject) was original even with intransitive verbs, where it still occurs sometimes in classical texts. The consequence of this interpretation, however, is that we should start from a noun rather than from an adjectival participle, as Meillet (1903:97) did. The only difference between Weitenberg and Meillet then is that the latter considered the *-eal-* form an original verbal abstract while the former thinks of it as a nominalized adjective. According to Weitenberg (1986:21 ff.), we have to start from nominal sentences like:

(14) **ekealom mardoskom* 'having come (is) the man's,'
**tesealom mardom merom* 'a state of seeing-the-man (is)
 ours.'

But there are at least two problems which remain unsolved in Weitenberg's explanation: 1. If we start from a participle, we have to assume—before no.(14)—an original construction like:

(15) *<*ekealos mardos* = German 'gekommen (ist) der Mann,'

and there is no reason why this construction should have been replaced by that supposed by Weitenberg in no.(14) with a nominalized participle.

2. Of great importance is also the fact that a transitive sentence

like that postulated by Weitenberg shows twofold government: the verbal noun (ex-participle) in *-eal* has verbal government with regard to the accusative of object, but nominal with regard to the genitive of agent. The English translation given by Weitenberg in (14) shows this difficulty by rendering the accusative of object with a compound, i.e., with the genitive of object. If in English the verbal noun in *-ing* sometimes may govern an accusative object, this is due to the fact that it is a hybrid between the old verbal noun and the present participle (OE *-unge/-inge* vs. *-inde*): "But 'doing good' without *of* was probably modelled on the older type, 'good-doing,' which was continued to the last of the Mi[ddle] E[nglish] period" (Kellner 1892:261).

Weitenberg's explanation raises, in fact, the same objections as Meillet's hypothesis of 1903 did (cf. Stempel 1983:69 ff.), but his view is even more compromised by the assumption that a nominalized participle has the value of an abstract noun (together with past tense meaning) rather than of a concrete noun (without any temporal/aspectual connotation).

Apart from these difficulties, it seems hard to believe that an impersonal construction should be the origin not only of the periphrastic perfect, but also of the participium coniunctum (which has the same syntax, cf. (3) above). The Slavic impersonal constructions based on the *to/no-* participle, which Weitenberg—interpreting Pedersen (1907:157ff.)—postulates as parallel to the OA construction, is to be found in sentences without agent, "als subjektlose transitive 'man'-form des präteritums" (Pedersen 1907:158), or, like the Russian type:

- (16) *otca ubilo derevom*, literally 'it has slain the father by a tree,'

in sentences with a supernatural agent, and therefore incompatible with the OA transitive (and personal) perfect.

The underlying question to be answered is whether or not the OA *-eal-* participle is indifferent with regard to diathesis and what diathetical indifference really means. We are concerned here also with the genesis of the *-eal-* formation. I do not think, as Weitenberg does, that the *-eal-* participle is to be connected directly to Slavic and Tokharian *lo-* forms, but that in these three languages we are dealing with independent developments of a rather remote IE formation. In Armenian it took the place of the **-to-* participle which had been obscured by sound changes (cf. Stempel 1983:47ff.).

As a substitute for the older **-to-* participle, the *-eal-* formation originally had only passive meaning with transitive, and active meaning with intransitive verbs, as in Latin *actus* versus *gressus*. The diathetical indifference here is only apparent, because Latin *actus* may be translated by '(having been) driven,' but not by 'having driven.' While in Latin voice is connected with the lexical meaning, in Old Armenian it is connected with the syntax of the sentence, i.e., the accusative of object and/or the genitive of agent occurs with transitive meaning, the nominative of subject with intransitive meaning. When nominalized, an *-eal-* participle has always intransitive or passive meaning, e.g.,

- (17) me^feal 'dead person' (from 'having died') versus
 arak'eal 'apostle' (from 'having been sent').

Therefore, I think—as Benveniste did—that the intransitive/passive meaning of *-eal* is primary and that it acquired active meaning within the periphrastic perfect. The genitive of agent in connection with a participle is inherited from Indo-European, as in Indo-Iranian, Baltic, and Tokharian as well (cf. Schwyzler 1943). It has to be emphasized that the genitive of agent with a verbal adjective is the only feature of the OA transitive perfect whose IE age is beyond doubt. Furthermore, there is no IE language showing a participle with indifferent active or passive value, voice being expressed either lexically (Latin), or syntactically (Old Armenian), or morphologically (Middle and Modern Armenian). Hence the term "indifference with regard to diathesis" only describes the morphological situation, but it cannot be adduced for assuming an underlying non-differentiation of voice with a participial construction.

To sum up, Weitenberg's objections to my views and the opinions that he has expressed are insufficient for three reasons:

1. nominal **and** verbal government of the *-eal-* form at the same time is not possible;
2. a nominalized participle does not necessarily yield an abstract noun, but rather a concrete one, not to speak of the question of tense/aspect with a verbal noun;
3. the question of how a relatively rare impersonal construction may generate a periphrastic (and personal) perfect remains open.

As a result, I shall stick to my opinion that the OA transitive perfect is based on an originally passive utterance such as:

- (18) *nora gorceal ê gorc (nom.!) 'eius factum est opus.'

Since in sentences with finite tense-forms, e.g.,

(19) (aor.) *gorc gorcec'aw i nmanê* 'the work was done by him,'

the agent was added by *i* plus ablative case, the latter construction was extended to the periphrastic perfect yielding:

(20) *gorc gorceal ê i nmanê* 'the work has been done by him,'

which is the normal passive perfect in OA. At that time, the old construction was interpreted as parallel to the active type, like:

(21) (aor.) (na) *gorceac' (z-)gorc* 'he did the work,'

the grammatical subject *gorc* now being interpreted as the logical object and hence marked by the nota accusativi *z-*. Only can then the participle acquire active meaning, because it may now be reinterpreted as governing the new accusative, and no longer as the determinans of the former nominative; its active meaning, however, is not morphologically differentiated, but still depends on the genitive of agent and/or the accusative of object, that is to say, voice is expressed by means of syntax. Finally, i.e., in Middle and Modern Armenian, the older passive meaning is replaced by the formation in *-u/v-el* and the *-el* (< *-eal-*) form is restricted to active meaning, voice being expressed now by means of morphology.

The development proposed here is paralleled by similar constructions in modern Indo-Iranian languages (cf. Stempel 1983:79 ff.) which are called 'ergative constructions.' Since the modern Indo-Iranian as well as the Old Armenian perfects go back to an IE passive construction which was reinterpreted as active, I hesitate to use this term here, for it might lead to the erroneous conclusion that Old Armenian really possessed an ergative construction (cf. K.H.Schmidt in the discussion of Tumanjan in Tumanjan 1972:960). Instead of introducing new terms for the OA transitive perfect, I should prefer to emphasize its intermediate position between a prehistoric passive and the Modern Armenian active construction.

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THE KINGDOM OF THE KAĖES

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The term *kaĖ* is familiar in the cultures of the southern Caucasus as the name of a type of demon. Best known as the villains of the Georgian national epic, the *Vepxist'qaosani*, the *kaĖes* also play prominent roles in the folklore of the modern Georgians, as well as the southern Ossetians. They are also alluded to in various passages of the early literature of both the Georgians and the Armenians. Despite the long and well-attested history of the *kaĖ*, however, there are still clear problems with what exactly the term describes. A sketch of the Caucasian *kaĖ* will have to accommodate and reconcile a good number of mutually conflicting details.

The Ossetian term *kadzy* or *kaĖy* is clearly a borrowing from Georgian *kaĖ-i*, as is indicated both by its final syllable and by its restriction to the dialect of the southern Caucasus. The *kaĖy-tä* figure prominently in several episodes of the local Nart cycle, playing the role of nemeses to the heroic Narts. The *kaĖes* in these tales remain quite ill-defined, however, being characterized by little more than a propensity toward feuding with the Narts. They inhabit a city (*kalak*), as opposed to the village (*qäw*) of the Narts.¹ Although identified as "demons," the Ossetian *kaĖes* exhibit no truly supernatural features. It is worth noting that much of their fighting with the Narts is the result of some wrong committed against them by the heroes of the stories.

One such tale (Abaev 1939:48-52) relates how the *kaĖ* queen sends a group of *kaĖ* maidens to the Nart village for a celebration (*käxc*) on the occasion of the birth of her son. While on the road the maidens are assaulted by the Nart warrior Sozryqo.² The outraged *kaĖes* capture Sozryqo and another youth and fasten them to a wall in their stronghold. The Narts fall into a state of despondency at the disappearance of the hero, until the Nart champion Batraj learns of Sozryqo's whereabouts from the daughter of the sun, and storms the city to free the prisoners.

A similar tale (Abaev et al. 1957:282-4) describes a *kaĖ* raid in which the Nart herdsman Wazyr is taken prisoner. Led by their chief Wryzmäg, the Narts attack the *kaĖes* and destroy their city.

The *kaĖes* appear in another account (Abaev et al. 1957:271-4) as guests at a Nart feast. When a fight breaks out and one of the *kaĖes* is killed, the survivors demand that the Narts satisfy the blood-debt by surrendering Wryzmäg's wife Satana. After

debating, the Narts decide to substitute for their queen the daughter of the witch Kulbadag, and the kaĵes, taken in by the ruse, accept the hostage as their new ruler.

The motif of the storming of the castle of the kaĵes is also familiar in the folk literature of the Georgians. Charachidzé has found a number of modern Georgian folk stories centering upon the animosity between the kaĵes and the heroic Xtišvilebi, led by Giorgi (St. George). One such tale combines the war against the kaĵes with a raid on the tribe of the Tush, and incorporates allusions to female captives which calls to mind the liberation of the literary Nestan-Dareĵan (v. *infra*).

Le Giorgi des Xaxmat'i se prépare à la guerre contre les Kadzhi.

Le Xat'i victorieux a réuni l'armée des anges.

Giorgi, le saint des voyageurs, a changé en mouche bourdonnante

Gaxua Megrelauri,³ et l'a envoyé en éclaireur.

Les Xtishvil se dressent et s'en vont—Mais où est donc K'op'ala?—

Les Xtishvil se dressent et s'en vont, ils assistent leur frère juré.

Giorgi ne parvient pas à pénétrer dans la ville, une terrible flamme s'en dégage.

Ils ont pris la ville des Kadzhi, ils y ont versé l'eau de naphte.

C'est là-bas que Giorgi captura les trois femmes-Kadzhi:

Samdzimari et la Femme-Soleil, la troisième Ashe-Kali,

Il a placé près de lui les trois sœurs.

Les Xtishvil sont revenus de là-bas, ébranlant la montagne et la plaine.

Ils ont parcouru mer et terre, ont contourné les eaux de feu.

Giorgi a ordonné aux Tush: je veux que vous soyez mes serfs.

Ils ont osé lui résister; il a rassemblé une force redoutable,

Les a réduits en pièces, massacrés. Il a tué leurs vaches, leurs moutons,

Puis a infligé aux hommes un châtement inouï.

Les Tush comprirent alors quelle était la puissance du Xat'i.

Il est revenu à son torrent, y a allumé une grande flamme.
(Charachidzé 1968:516)

The best-known appearance of the kaĵes is surely that found in

the Georgian epic *Vepxist'qaosani* (Rustaveli 1956). KaĖeti here is located "beyond the sea"; efforts have been made to identify it with sites ranging from Afghanistan to Mauretania. The kaĖes occupy a mighty citadel which has never been stormed, in which they have imprisoned their captive Nestan-DareĖan.

kaĖta kalaki akamdis mt'ertagan ubrjolvelia
kalaksa ťua magari k'lde maĖali da grjelia
mas k'ldesa ťigan gvirabi, asajromeli xvrelia
mun aris mart'o mnatobi, mista ťemqrelia mc'velia. (1427)

The city of the Kadjis has hitherto been unassailable by foes; within the city is a strong rock, high and long; inside that rock is hollowed out a passage for climbing up. Above there is that star, the consumer of those who come in touch with her. (Rust'hveli 1939:223)

The "city of the kaĖes" is also found in the Georgian Chronicle. The term *kaĖta kalaki* is used of Art'ana and C'unda, two garrison towns established by the legendary Armenian king Javaxos (Toumanoff 1963:445).

*xolo ġavaxoss misca panavritgan vidre tavadmde mt'k'urisa
da aman ġavaxos aġaťena omi cixe-kalakni: c'unda da
kalaki art'anisa, romelsa maťin erkua kaĖta kalaki, xolo ac'
hkvian huri.*

And to Javaxos was given from (lake) Panavari to the source of the Cyrus, and Javaxos built two fortresses: C'unda and the city of Art'ana, which was called "city of the kaĖes," and now is called Huri.

Another such passage in the Chronicle observes that the Armenian king settled "fierce men" (*k'acni mxecni*) at C'unda and therefore named it *KaĖat'un*, meaning 'house of demons' (Charachidze 1968:534). The fact that the author of the Chronicle felt obliged to add the gloss suggests that he felt that the name would otherwise be opaque to his readers. *KaĖ* appears here in an Armenian compound (*t'un* 'house'), indicating that perhaps Armenian was the source of Georgian *kaĖ-i*.

The inspection of an Armenian dictionary will reveal an adjective *k'aĖ* 'brave, good' and a homonymous noun meaning 'hero,' as well as dozens of compounds in which *k'aĖ-* serves as an

intensifier. In the older literature, however, the term is used of a race of supernatural beings similar to the *kaĵes* of Ossetian and Georgian folklore. They play a prominent role in the legend of King Artavazd, whom the *k'aĵk'* hold prisoner in the mountains on account of his irreverence.

Of him the singers of Golt'n tell the following fable. At the death of Artashēs much slaughter took place according to pagan custom. Artavazd, they say, was displeased and said to his father:

Since you went and took all the land with you
to what purpose shall I reign over these ruins?

Therefore Artashēs cursed him in these words:

If you go hunting up on Noble Masis,
The spirits [*kaĵes*] will seize you and take you up to Noble
Masis;
there you will remain and no more see the light. (Moses
Khorenats'i 1978:203)

St. Gregory, decrying belief in the *k'aĵk'* as vulgar superstition, cites some examples of the role of the creatures in contemporary legend.

Question: Les Khadjs sont des créatures invisibles de Dieu, ce sont eux qui font les guerres, ce sont eux qui chassent les gibiers, ce sont eux qui emportent les denrées des aires et le vin des cuves, comme les vichaps têtent le bétail de race du troupeau...

Ils disent: Les Khadjs et les vichaps ont leurs maîtres et habitations dans les hautes montagnes; ils tiennent enchaîné Alexandre à Rome, Artavazd sur le Massis et Arouand dans les cours d'eau et les caves... (Adontz 1926:336)

It appears, therefore, that older Armenian knew the *kaĵ* both as an object of moral admiration and of superstitious fear. Charachidzé has attempted to reconcile this discrepancy by reconstructing the ancient *kaĵ* as a human warrior of the berserk type, one whose ferocity and destructiveness lead to his exclusion from normal society.

... Si l'on s'en tient à l'évolution du sens, l'on conçoit mal

comment le démoniaque *Kadzha* a pu aboutir à des notions telles que bravoure, vertu, habileté, etc. Au contraire, si l'on prend en considération les faits archaïques que suggère la chronique géorgienne, les deux processus sémantiques se comprennent aisément, malgré leur divergence. Une fois admis en effet, qu'à une époque reculée, le terme *Kadzha* était appliqué à des guerriers constituant, à la suite d'une initiation, un groupe doué de pouvoirs magiques, exerçant leur fureur semi-animale non seulement contre les ennemis, mais également aux dépens de leur propre société, l'on s'explique mieux que le même nom ait pu devenir pour les uns synonyme de démon et s'identifier pour les autres au modèle du héros intrépide, habile et bienfaisant. (Charachidzé 1968:535-6)

It appears that the modern student is not alone in finding the ambiguous nature of the Caucasian *kaĲ* perplexing. Even in Rustaveli's time the issue was a confusing one, as we may see from a passage in the *Vepxist'qaosani* in which Avtandil expresses his bewilderment on learning that his beloved has been abducted by the *kaĲes*.

He said to P'hatman: "Beloved, thou art worthy to be loved by me, thou hast let me hear a welcome story, not with lowering looks; but let me hear more fully about Kadjet'hi; every KadĲ is fleshless, how can it become human?"

"Pity for that maiden kindles me and burns me with flame; but I marvel what the fleshless KadĲis can do with a woman!" P'hatman said: "Harken to me! Truly I see thee here perplexed... They are not KadĲis, but men (who) put their trust in steep rocks," quoth she.

"Their name is called KadĲi because they are banded together, men skilled in sorcery, exceeding cunning in the art, harmers of all men, themselves unable to be harmed by any; they that go out to join battle with them come back blinded and shamed.

"They do something wondrous, they blind the eyes of their foes, they raise fearful winds, they make the ship to founder midst the seas, they run as on dry land, (for) they clean dry up the water; if they wish they make the day dark, if they wish they enlighten the darkness.

"For this reason all those that dwell round about call them KadĲis, though they, too, are men fleshly like us." Avt'handil

thanked her: "Thou hast extinguished my hot flames; the tidings just told me have pleased me greatly." (Rust'hveli 1939:224)

As far as the *kaĵ* as a linguistic problem is concerned, the only attempt at an etymology of which I am aware (Mann 1963:97) traces Armenian *kcaĵ* back to an Indo-European **k^wādhio-*, citing Ossetian *kad* 'honor' and Irish *cáidh* 'chaste, pure.' There is, however, very little hard evidence in support of such a root. The Ossetian word, at least, has been analyzed by Abaev as a *-ta* participle of the Iranian verbal root **kā(y)-*, and thus may not be adduced as support of the **dh* which Mann's view of *kcaĵ* demands.

I would like to suggest the possibility that the Caucasian term *kaĵ* is to be related to the Middle Persian form *kai* 'king.' This latter is the descendant of the Old Iranian *kavay-*, the name of a class of princes in ancient Iran. In addition to exercising temporal authority, the ancient *kavays* occupied an important position in the religious system of pre-Zoroastrian society. In this sacerdotal capacity the *kavays* bitterly opposed the spread of Zarathushtra's religion, and thereby earned a place of infamy in Zoroastrian tradition. For the followers of Zarathushtra, the pagan priests came to be the instruments of Anghra- Mainyav-, the Hostile Spirit, who, because of their exalted worldly position, were free to persecute the faithful as they wished.

...yaθa taurvayeni vīspanaṃ tbišvatāṃ tbaēšā daēvanāṃ
mašyānaṃča yāθwāṃ pairikaṇaṃča sāθraṃ kaoyaṃ
karafnaṃča mairyaṇaṃča bizangraṇaṃ ašəmaoḡanaṃča
bizangraṇaṃča vəhrkaṇaṃča čaθwarə. zagraṇaṃ haēnyāšča
pərəθu.ainikayā dāvaiθyā patāiθyā (Yasna 9:18)

... that I may overcome the hostilities of all enemies, demons and humans, warlocks and witches, potentates and *kavays* and *karapan*-priests, and two-legged villains, and two-legged heretics, and four-legged wolves, and the broad-fronted advancing army.

... xšaθrāiš yūjən karapanō kāvayasča akāiš šyaoθanāiš
ahūm mərəngəidyāi mašīm (Yasna 46:11)

...Through their power the *karapan*-priests and the *kavays* make men familiar with evil deeds, in order to destroy the (second) life...

At the same time, however, the term *kavay-* was finding another important place in Zoroastrian tradition. It was used to refer to a line of legendary kings founded by *Kavāta-* (said to be by haplology from **kavā-vāta-* 'kavay-wind'; Firdausi's *Qobād*). This dynasty formed the backbone of the mythical prehistory of Iran, supplying a series of monarchs who presided over the destiny of Iran through its legendary youth of heroes and demons. Many of these kings—such as *Kavay-Vištasp-*, at whose court the prophet Zarathushtra is said to have taken refuge—became ideals of the Iranian monarch, the preserver of peace and defender of justice in whom resided the royal glory (*xʷamah-*) bestowed by Ahura- Mazda. Others of the line, falling prey to their own pride, were led to abuse their power and were ultimately abandoned by Ahura- Mazda—one may note the case of *Kavay-Usa-* (*Kā'ūs*), who sought to reach heaven on a throne borne by eagles. On the whole, however, tradition recalls the age of the line of *Kavāta-* as a golden age of glorious rule and illustrious heroism.

This is the source of Middle Persian *kai* 'king,' with its plural *kayān*. Alongside these forms, however, Middle Persian shows *kayak* or *kaik* (written *kdk*), a collective 'pagan priests,' which is a preservation of the ancient cultic use of *kavay-*. This is the form used in the Middle Persian commentaries on the Avesta in passages dealing with the *kavay-* in his "Ahrimanic" aspect. Cf.:

anāiš ā vī.nənāsā yā karapō.tāsča kəvītāsčā (Yasna 32.15)

Thereby the *karapan-dom* has fallen, and the *kavay-dom*....

for which the Middle Persian commentary renders *kəvītāt-* 'kavay-dom' by *kē kayak hēnd* 'who are kayak,' as if to avoid the possibility of connecting *kəvītāt-* here with the *kayān*.

Elsewhere in Middle Iranian traces of the *kavay-* in his "priest cum demon" role survive, alongside that of the king. The demonic face of the Zoroastrian *kavay-* is probably to be seen in the Parthian form *kav*, used in Manichaean texts of a race of primeval giants destroyed by the angels (Henning 1943:53). Likewise, according to Bailey, Khotanese maintains the dual sense of Old Iranian *kavay-* in its form *kai* (plural *kā*), which is used both in the sense of 'heroic' and 'ārya-monk' (Bailey 1979:64-5).

Phonologically, Persian *kai* is noteworthy in that it contains a diphthong *ai* not resulting from an earlier dental. Typically,

Persian *ai* is the result of a former dental stop **d* (e.g., *pai* 'footprint' < **pada-* 'step,' *mai* 'wine' < **madav-* 'honey') or **t* (in the prefix **pati-* — *paikar* 'picture' < Old Persian *pati-kara-* 'likeness'). Geiger and Kuhn (GiP 38) trace *kai* back to a thematicized **kavaya-*, since **kavi-* would presumably have given **kav* or **ko*. It seems just as likely, however, that the original form of *kai* could have been a thematicized zero-grade **kavy-a-* (cf. Avestan *kaoya-* 'of the *Kavay-* dynasty'), with the peculiar diphthong resulting from the rather rare sequence **-avy(a)-*. Whether this be the case or not, the *ai* of *kai* is historically something quite distinct from the normal *ai* of Persian.

Another instance of this diphthong is to be found in the name of the city *Rai*, formerly located not far from Tehran. In Old Persian it was known as *Ragay-* (Greek *Rhāgai*), leading Geiger and Kuhn (GiP 38) to postulate an anomalous shift **-aga- > -ai*, despite *mağ* 'depth' < **maga-*, *bağ* 'god' (in the name of the city Baghdad) < **baga-*, etc. In this case, again, it may be simpler to find in *Rai* a zero-grade form **Ragy-(a)*, analogous to what has been suggested for *kai*.

Old Iran.	<i>*kavay-</i> (Full-grade)		
	<i>*kavy-(a)</i> (Zero-grade)	>	MP <i>kai</i>
	<i>*Ragay-</i> (Full-grade)		
	<i>*Ragy-(a)</i> (Zero-grade)	>	MP <i>Rai</i>

In Firdausi's time the diphthongs of *kai* and *Rai* still showed enough affinity to be rhymed with one another in the *Shah-Nameh* on two occasions (277, 590).

In addition to its historically peculiar diphthong, *Rai* is also curious by virtue of its derived adjective *rāčīk* (later *rāzī*). The addition of the suffix *-čīk* causes the replacement of the *ai* with *ā*, a phenomenon which Geiger and Kuhn describe as loss of **g* (**rag-čīk*) and compensatory lengthening, although they grant that the same development is not to be found in *sag-zī* 'Sijistani.'

Given the close phonological correspondence of *Rai* and *kai*, we might conjecture what form a *-čīk* derivative of *kai* would take. There is a good possibility that the result would be **kāčīk*, analogous to *rāčīk*. If this is the case, we find ourselves in the presence of a plausible source for the Caucasian *kač*.

<i>*Rai-čīk-</i>	>	<i>rāčīk</i>	' <i>Rai</i> -man'
<i>*kai-čīk-</i>	>	<i>*kāčīk</i>	' <i>kai</i> -man'

In light of this possibility, it is worth noting that a very similar

morphophonological development has been suggested for *tāčik* 'Arab; (ult.) Tajik.' It has been claimed that this curious name represents a *-čik* derivative based on the name of the Arab tribe *Banū Tayyi*' (Horn 1893:82). If this etymology is valid, it would constitute another instance of the phenomenon seen in *rāčik* and **kāčik*, although based on a loanword rather than on a native Iranian stem.

Is there reason to suspect that Persian at one time possessed a form **kāčik* or **kāzi*? While no dictionary of Middle or Modern Persian I have encountered contains such a word, this may not in itself be decisive. The introduction of Arabic *ğāzī* 'warrior for the Faith' and *qāzī* 'judge or administrator,' comparable both in phonological shape and semantics, could have contributed to the disappearance of a native **kāzī*. The Encyclopedia of Islam [Old Series], however, does list an obsolete coin known as *kāzbēgī*, glossed as 'king's money' (Houtsma 1927:838), and it is possible that traces of the posited word are to be seen in place names such as *Kāzerūn* (cf. Middle Persian *rūn* 'region'?) and *Kāj*.

In addition, it is possible that the Caucasian loanword *kaĵ* has relatives elsewhere in the languages bordering upon Persian. Syriac, for example, shows a form *kzyr* 'mounted hero or warrior' (Arabic gloss *al-batal al-fāris*). Of the various vowelings attested (*kəzīrā*, *kaz(z)īrā*, *kāzīrā*), the last, with long *ā*, constitutes the *lectio difficilior*, since *kəzīr-* seems suspiciously close to the passive participle (*qəṭīl-*), while *kaz(z)īr-* follows the familiar pattern of adjectives such as *šappīr-* 'beautiful.' This form may represent a Persian compound **kāz-īr*, with the second element being *īr* 'man' (<**arya-*). It is interesting to note, at any rate, that the derivatives of Syriac *kzyr* show a semantic bifurcation reminiscent of the moral ambivalence of the Caucasian *kaĵ*: derived abstract *kzyr-ūtā* 'valor, chivalry (*al-furūsiyya*)' vs. derived adjective *kzyr-āyā* 'hard-hearted (Arabic *qāsī al-qalb*).'

A form *kešik* is found in medieval Mongol texts (Chaghatai *kešik*) with the sense 'guard duty, position of royal bodyguard.' It has left traces in the form of loanwords in Pashto, Kurdish, Urdu, and Modern Persian. Although the term has been regarded as connected with Turkic *kāzig* 'order, sequence,' the use of *kešik* with explicit reference to the men associated with the ruler makes a connection with our posited **kāčik* worthy of consideration (Doerfer I:467-70).

In the Caucasus, again, older Armenian texts borrow Greek *khōrepískopos* 'local bishop' with a meaning 'governor,' using

either *k'orepiskop* or *k'orikoz*. While the first is plainly taken directly from Greek, the second shows a peculiar -*koz* occupying the position of *epískopos*. Note also the Georgian form *korik'ozi* 'Stellvertreter des Königs' (Tschenkéli 1970:s.v.). It is not impossible that this element represents another (later?) borrowing of the alleged Persian **kāzī*.

Before concluding, I would like to add one parenthetical note on the fate of the Iranian *kavay-* in the Caucasus. The Ossetian verb *kuv-yn* (Digor *kov-un*) 'pray,' together with an assortment of nominal forms based upon the stem *kuv-* (*kuv-d* 'prayer, ceremonial banquet,' *kuv-äkkag* 'toast honoring a deity,' *kuv-ändon* 'sanctuary'), is among the most important elements of traditional Ossetian culture. The **kaup-/b-* which this stem calls for has been said to be unknown in Iranian; Benveniste has attempted to adduce the obscure Vedic term *kubhanyū-* (*chandastúbhaḥ kubhanyáva útsam ā kīriṇo nṛtuḥ* — Mand V 52, 12 "chandaḥsänger, sich drehende Tänzer, singend haben auf dem Schlauche sie getantz [Ludwig 1876:299]) as a correspondent. On the basis of Ossetian *kuv-* he has rendered Vedic *kubh-* as 'célébrer un rite de communion,' but this can be no more than speculation.

There are a number of occasions, however, on which Ossetian *b-/v-* appears to have arisen from an Iranian **v-*. Miller (1962:62) cites the possible cases *bar* 'desire' (Skt. *varas*, *varam* 'choice') and *bijyn* 'twist, wind' (Skt. *vayati* 'weaves,' OCS *viti*). One may also note *räduv-yn* (Digor *rädoṽ-un*) 'tear out,' which would appear to be from unattested **fra-daup-/b-*, but which calls to mind Avestan *fra-dav-* 'mit sich fortführen, fortreißen' (Bartholomae 1961:687). Benveniste (1959:11-2), denying the possibility of Ossetian *-v-* coming from any source other than **p/b-*, suggests a Sogdian cognate to *-duv-* in **-δwβ-*, *p-δwβ-* 'attach,' ascribing the difference in the meanings observed to the contrasting preverbs, but even if this correspondence proves to be valid the pair *-duv-/δwβ-* would remain unexplained and without parallel in Iranian.

One may wonder, therefore, whether the curious Ossetian stem *kuv-* may be identified as a trace of the Iranian *kavay-* in his original, sacerdotal aspect. That the word was found in the Scythian-Alanic branch of Iranian is suggested, I would claim, by the Scythian personal name *Ko-pharmos* ('ko-glory'), the first element of which Zgusta (1955:111) has read as *gav-* 'cow,' while granting that the appearance of *kappa* for Iranian *g* is unexpected.⁴ We may also note, incidentally, that Khotanese shows a form *kabi* 'hero' (alongside the *kai* mentioned above), said to be "dialectal,"

which shows an unexpected stop quite similar to what our analysis of Ossetian *kuv-* conjectures.

Pending substantiation by further research into the historical phonology of Ossetian, of course, an equation of *kuv-* and Iranian **kavay-* remains no more than conjecture. In any event, it has no real bearing upon the thesis of the preceding pages: that we may find in the *kaj* of the folklore of the southern Caucasus a relic of the ancient Zoroastrian *kai*, a relic which retains within its thematic ambiguity a remnant of the problematical position of the *kai* in the world of ancient Iranian myth.

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NOTES

¹One account (*Xussar iron...* I(1929):32) locates the kajēs at the bottom of the sea.

²Or, in another account (Abaev et al. 1957:276), by a band of Nart youths.

³A human shaman accompanying Giorgi in several of his exploits.

⁴It is quite possible, however, that *Kopharnos* is Parthian rather than Scythian. The development of **x^varnah-* to *farn* shows the **x^v- > f-* typical of Parthian; the resulting *farn* subsequently spread widely throughout the Iranian languages (including Ossetian). The Parthian equivalent of **kavi-x^varnah-* would presumably have been **kav-farn* (cf. the Manichaean Parthian *kav* noted above).

THE CASE OF PREDICATIVE ADJECTIVES IN LITHUANIAN TEXTS

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1. Introduction. In predicative usage, a noun or adjective in Lithuanian can appear either in the same case as its controller (that argument of the host predicate of which the predicative reports a property) or in the instrumental. Following earlier studies (Fraenkel 1925, Nichols 1981a), a recent paper examined case variation in two Lithuanian texts in predicative nouns in particular (Timberlake 1988). The present study is a parallel investigation of textual case usage in predicative adjectives. As it happens, case variation is less active with adjectives than with nouns, in that adjectives occur overwhelmingly in the agreeing case (in practice, usually the nominative), to the near exclusion of the instrumental.¹ Although the low frequency of instrumental with adjectives renders the use of statistical techniques inappropriate, it allows for a more leisurely discussion of the semantics of individual examples in their textual context. What emerges in general is that the instrumental, in the rare instances when it is used, can signal one (or more) of a restricted repertoire of semantic operations, but it is not a priori predictable which operation will be signalled in a given sentence; nor is it predictable from context whether the instrumental will be used at all. Two other issues of general interest arise with case of predicative adjectives. One concerns the lexical predicate-argument relations of controllers to host predicates. The other is the semantic difference between nouns and adjectives in predicative usage: although it has come to be expected that nouns should occur in the instrumental more readily than adjectives, the significance of this is not obvious.

2. Case in Predicative Adjectives (Finite Host). The discussion of case usage can be structured by syntagmatic context, typologized according to the host predicative and the predicate-argument role of the controller. I consider first nominative controller with finite predicate hosts.

With the past tense of the copula *būti*, the nominative (agreeing case for a nominative controller) is used predominantly. Even with predicative nouns, the instrumental is not particularly frequent (around 10%), but with adjectives the preponderance of nominative is so great as to prompt incredulity. Out of 365 examples, a paltry two took instrumental. Let us look at the two in turn. The first:

- (1) Per keletą metų šis "vikarų piūklas" taip sužalojo Jokūbaičio dvasią, kad, vėliau jį susitikęs, aš tiesiog nebeatpažinau jame ano gero, nuoširdaus vaikino, kokiū^{INS} jis buvo seminarijoje ir pirmaisiais savo kunigavimo metais. [J. Ragauskas 198]

'After a few years this "vicar's saw" so mangled Jokūbaitis's soul that on meeting him later, I really no longer recognized in him that good, open child, such^{INS} as he was in the seminary and in the first years of his priesthood.'

This example has certain peculiarities to which the use of the instrumental might be attributed. Though the word order is inverted PA/V/S, this order seems to be highly descriptive, a quality which in predicative nouns disfavors the instrumental (Nichols 1981a, Timberlake 1988). Nominative is used with PA/V/S order in numerous other examples, such as:

- (2) Šiurpus^{NOM} būdavo įspūdis, kai mane iš miego pažadindavo šūvių trenksmas. [J. Ragauskas 271]

'Horrible^{NOM} was the impression when I was woken by the crack of gunfire'

In (1), the adjective is pronominal *koks*. Generally, though, *koks* (or *kitoks*, *toks*) is descriptive and does not condition instrumental. Note (3), like (1), with inverted word order:

- (3) Koks^{NOM} gi buvo mano nustebimas, kai zakristijonas ne tik neatėjo manęs vestis bausmei,[...] [J. Ragauskas 59]

'Such^{NOM} was my surprise when the deacon not only didn't come to take me off to punishment,[...]'

Despite certain similarities (1) and (3) differ in that in (1) *koks* functions as a relative pronoun. The closest parallel for (1) is (4), in which *koks* is likewise used as a relative, but in the nominative:

- (4) Saikingam, blaiviam pastoriui, be to, tokiam darbščiam žmogui, koks^{NOM} buvo K. Donelaitis, žinoma, labai nykų įspūdį darė ne tik girtuoklių stūgavimai, burnojimai, bet ir [...] [V. Kuzmickas 190]

'On a moderate, sober pastor—further, on a hardworking

man such^{NOM} as was K. Donelaitis, of course, a great impression was made not only by the howlings, the cursings, of drunkards, but also [....]'

(1) differs from (4) in two respects. The first concerns the values of the property over coordinates of time and circumstance. In general, properties may be constant over these coordinates, or they may change. (4) reports a permanent, global, atemporal property of the referent, while (1) reports a property that held only during a certain period of time and was subsequently cancelled. One difference between (1) and (4), then, is that the predicative property in (1) is subjected to **aspectualization**, a semantic process that imposes a change in polarity of the predicative state over the coordinates of time and circumstance. A second difference concerns the nature of the property that is predicated. In (4) what is relativized is the property of being a hardworking man, which is to say effectively the property of being hardworking ('someone who was hardworking in the way that K. Donelaitis was'). In (1) the instrumental signals that what is relativized is the property of membership in the class of a certain kind of children, as opposed to membership in the class of another kind of children; from membership in that class follow expectations about other properties ('the type of child of which he was a token'). Thus, in (1) the predicative property is **individualized**; it is converted from pure property to the property of membership in the class of individuals generated by that property. If this interpretation of (1) vs. (4)—virtually identical in formal structure—is correct, it shows that the choice of case is not always syntagmatically predictable; case choice itself may impose an interpretation on the predicative.

The second example of instrumental:

- (5) Pasižymėjusių sąrašė, kuris šifruote buvo perduotas į Partizaninio judėjimo centro štabą draugui Ponomarenkai, pirmosiomis^{INS} buvo dviejų Konstantinų pavardės. [S. Vaupšasovas 176]

'On the list of honored, which was sent in code to Comrade Ponomarenkas at the headquarters of the Partisan movement, first^{INS} were the names of the two Konstantins.'

Here the adjective, a long-form ordinal, is individualized: it partitions individuals into the class of those who were first and those who were not. Though individualization of the adjective is

partly responsible for the instrumental, long-form adjectives occur a handful of times elsewhere in the corpus in the nominative. Two examples:

- (6) Bet nėra abejonės, kad vienas iš jų buvo tikrasis^{NOM}. [J. Ra-gauskas 191]

'But there is no doubt that one of the two was the true one^{NOM} [=the true pope].'

- (7) [...] mano žeminėje apsilankė du draugai. Pirmasis^{NOM} buvo mūsų pagrindininkas Nikolajus Rakas, antrasis—ryšininkas iš Vilniaus Nikolajus Vrublevskis. [S. Vaupšasovas 105]

'[...] in my bunker there came for a visit two comrades. The first^{NOM} was our undergrounder Nicholas Rakas, the second Nicholas Vrublevskij, a member of the signal corps from Vilnius.'

(7) in particular is structurally identical to (5), indicating that the semantic difference must be covert. (7) is purely identificatory and descriptive (the individuals had been introduced in the previous sentence), while (5) describes new information (there is no previous mention of the members of the list). In addition to the obvious individualization, then, the contrast appears to involve aspectualization; the aspectualization must be at the text level rather than the predicative level, inasmuch as much as there is no change in the polarity of the state over time.

We may turn now to consider other contexts with the finite hosts. The future, conditional, and imperative of *būti*—lumped together as a single context—produced no examples of instrumental in 53 instances, a surprising gap I leave as an unsolved puzzle. Moving away from *būti* to other host predicates, we can observe traces of the hierarchy of host predicates following lexical aspectual semantics: in order of increasing propensity towards instrumental, *pasirodyti* 'appear' ≤ *likti* 'remain' ≤ *tapti*, *darytis* 'become' (Nichols 1981a, Timberlake 1988). For predicative adjectives, there were no examples of instrumental with the first (25 examples) or second predicates (16) but 3 (among 26) with the last group of hosts. Three ordinary examples with nominative:

- (8) Pasidariau nepaprastai linksmas^{NOM}, gyvas^{NOM}, [...] [J.

'I became uncommonly happy^{NOM}, lively^{NOM}, [...]'

- (9) Mažos patalpos tapo dar mažesnės^{NOM}. [J. Šmotelis 210]

'The small quarters became even smaller^{NOM}.'

- (10) Ar aš nepasidarysiu ateity toks^{NOM}, kaip kunigas Juozėnas? [J. Ragauskas 123]

'Or would I not become in the future such^{NOM} as was Father Juozėnas?'

These ordinary examples can be used as the basis for comparison for one of the three examples of instrumental:

- (11) Kokie jūs nelaimingi, jaunieji žmonės[....] Nelaimingi būsite, jei nesuprasite savo vaidmens, dar nelaimingesniais^{INS} tapsite, jei suprasite... [J. Ragauskas 103]

'How unhappy you are, you young people. You'll be unhappy if you fail to understand your role, and you will become even more unhappy^{INS} if you do...'

(11), with instrumental, has a comparative adjective, but so does (9) above; (11) is future, but so is (10) above, though (10) also has the very descriptive adjective *toks*. Moreover, (11) does not seem to involve individualization (which would require a gloss like 'you will become the kind of people who are even more unhappy'). Instead, what seems to be distinctive about (11) is that it reports a possible future change which is contingent on other developments. In this respect it is triply aspectualized: at the level of the predicative itself (host *tapti* 'become' imposes a change of state on its predicative); at the sentence level (the predicate is future); and in the text (the future situation is contingent).

In the other two examples of instrumental with aspectualizing hosts ((12), (14)), the predicative is *vienas*.

- (12) [...] jis tapo vienu^{INS} uoliausių L. Rėzos talkininkų rengiant trečiąjį Biblijos vertimą į lietuvių kalbą. [V. Kuzmickas 213]

'[...] he became one^{INS} of the most devoted helpers of L. Réza preparing the third translation of the Bible into Lithuanian.'

As shown by (8), (9), and (10), adjectives do not usually use the instrumental with *tapti*. What is special about (12) is that it uses *vienas* in its elective sense, whereby the referent is ascribed the property of being one member of a certain class of individuals, and hence individualized. Yet *vienas* does not automatically occur in the instrumental; at least 4 times the same author uses nominative *vienas* electively in the past tense of *būti*, as in (13):

- (13) Pastorius XVIII a. Prūsijoje buvo *vienas*^{NOM} svarbiausių tarpininkų tarp Karališkosios valdžios ir jos žemiausių valdinių. [V. Kuzmickas 92]

'The pastor in eighteenth-century Prussia was one of the most important links between the royal authority and its earthly subjects.'

Thus, the instrumental in (12) appears to reflect the additive effect of two semantic processes: individualization (inherent in the elective sense of *vienas*) and aspectualization (imposed by the host *tapti*).

Individualization of the adjective, in the aspectualized context of the host *tapti*, may be sufficient grounds for the use of the instrumental in the other example ((14)):

- (14) Kristijonas kreipėsi į Romą, tačiau nei turty, nei valdžios jau nebeatgavo ir, 1243 m. suskaldžius Prūsiją į keturias diecezijas, jis tapo kuklios Kulmo vyskupijos ganytoju^{INS}. Tiesa, po keleto amžių vokiečių istorikai vyskupą Kristijoną paskelbė buvus vienu^{INS} pirmųjų kultūrtrėgerių, taikinguoju Prūsijos krikštytoju^{INS} ir net kankiniu^{INS}, jis tapo vienu^{INS} populiariausių Prūsijos užkariavimo karžygių. [V. Kuzmickas 35]

'Christian turned to Rome, but received neither riches nor power and, when in 1243 Prussia was divided in four dioceses, he became the shepherd^{INS} of the modest bishopric of Kulmas. True, following some ancient Germans, historians have proclaimed Christian to be one^{INS} of the first Kultur-träger^{INS}, the peaceful Christianizer^{INS} of Prussia and even a

martyr^{INS}, and he become one^{INS} of the most popular heroes of the conquering of Prussia.'

In (14), however, there may be an additional reason for the instrumental which is worth considering.

A property is true relative only to the frame of reference of a speaker, either the actual speaker or a secondary speaker (who may be a participant in the narrative). When two frames of reference are available, the speaker in principle has the choice of evaluating and reporting properties from the point of view of either. The process of differentiating two frames of reference may be termed **perspectivization**.

Perspectivization may be the value signalled by the instrumental in (14). In general, the author takes a dim view of German historiography of Prussia, and the instrumental in (14) indicates that Christian was a hero only in the frame of reference of certain historians. The differentiation of the author's frame of reference from that of the historians is marked explicitly by the ironic tone of the previous sentence in the passage, *istorikai Kristijoną paskelbė buvus [...]*. The use of the instrumental in the complements to *buvus* in (14) is all the more striking in comparison to (15), which has accusative nouns in the same syntactic construction, except that the matrix predicate *rodyti* (as well as the content of the embedded clause) implies greater sympathy on the part of the author with the reported information:

- (15) Z. Slaviūno nuomone, K. Donelaičio kantoriavimas Stalupėnuose rodo jį buvus ne eilinį muzikos mėgėją^{ACC}, o profesionalų^{ACC}, gero lygio muzikantą^{ACC}. [V. Kuzmickas 111]

'In the opinion of Z. Slaviūnas, K. Donelaitis's service as cantor in Stalupėnai shows him to have been not just an ordinary music lover^{ACC}, but a professional^{ACC}, a musician of a high level^{ACC}.'

If perspectivization is the motivation for the instrumentals in (14), (14) would be a parallel in predicative adjectives for a highly aberrant example of instrumental with nouns, discussed in Timberlake 1988. Among nouns, those that are descriptive take the nominative almost universally in the context of the past tense of *būti*—141 times. The lone sore thumb with instrumental

- (16) Juk tada nė į galvą neatėjo suabejoti pačiais scholastikos pagrindais: mano paties protavimas buvo tvirtai įstatytas į scholastikos vėžes—tikėjimo dogmos buvo kartu ir mokslinėmis tiesomis^{INS}, netgi aksiomomis^{INS}. [J. Ragauskas 71]

‘At that time it never occurred to me to doubt the scholastic principles themselves: my own thinking was firmly based in scholastic ways—the articles of faith were for me both scientific truths^{INS} and also axioms^{INS}.’

can be interpreted as signalling a discrepancy in the polarity of the state between the two frames of reference of the text—the internal, time-bound frame of the participant and the external, timeless frame of the author.

Concluding the discussion of examples of instrumental with predicatives governed by finite predicate hosts, we can recall that three types of values were signalled by the instrumental: individualization, aspectualization, and perspectivization. A given instance of the instrumental may signal one or more of these semantic operations.

3. Case in Predicative Adjectives (Nonfinite Host). Predicative nouns with the present active participle (or semiparticiples) occur in the instrumental about two thirds of the time (40 times out of 53 instances). Adjectives occur only 11 times in this context; of these only one was instrumental:

- (17) Būdamas religingu^{INS} ir analizuodamas gyvenimo faktus, mačiau, kad dievas nuolat sau prieštarauja. [J. Ragauskas 254]

‘Being religious^{INS} and analyzing the facts of life, I saw that God was constantly contradicting himself.’

Nothing obvious distinguishes this example from others, such as the following virtually identical example with nominative:

- (18) [...] aš iš pat mažens buvau ilgų poteriavimų priešas. Būdamas religingas^{NOM}, stengdavausi ir aš, vyresniųjų pavyzdžiu, ilgai melstis. [J. Ragauskas 22]

‘From an early age I was opposed to long prayers. Being

religious^{NOM}, though, I tried, following the example of my elders, to pray for a long time.'

The instrumental in (17) could signal perspectivization or individualization, or both. The perspectivized interpretation runs as follows. In the second example ((18)), the author adopts the point of the young boy and merges, or at least does not differentiate, his frame of reference and that of his hero. In the first example of the pair ((17)), the instrumental may signal a discrepancy between the author's contemporary frame of reference, when he is not religious, and the frame of reference of the participant in the reported event; the logic of the argument reported in (17) makes sense only internal to the religious frame of reference of the participant at that time. If individualization is involved in (17)—either instead of or in addition to perspectivization—it would induce a subtle difference in the semantic relation of the semiparticipial clause in *būdamas* to the matrix predicate. If (17) is individualized, the semiparticipial clause expresses a causal condition: the sense would be that the observations made follow as a consequence of belonging to a certain class of individuals (those who are religious) and, further, since the property partitions the universe of individuals, this consequence would not follow if the referent belonged to the other class of individuals (those who are not religious). In (18), which is non-individualized, the reported behavior is merely consistent with the reported property; that behavior might or might not follow if the the polarity of the property were different.

Individualization is probably the value in the two examples (among 26) of instrumental in another context, that in which the immediate host of the predicative is the infinitive *būti* governed by one of the auxiliaries *turėti* 'have,' *galėti* 'be able, be possible,' or *norėti* 'want':

- (19) Nūn žinau, kad reiks eiti pas didesnius ūkininkus uždarbiauti arba būti nereikalingu pilvu^{INS} mamai. Ne, nereikalingu^{INS} aš negaliu būti! [J. Šmotelis 30]

'Now I knew that I would have to go work for some larger farmers to earn money or be an unnecessary stomach^{INS} for mama. No, unnecessary^{INS} I could not be!'

- (20) Grigaitis nenorėjo būt mažesniu^{INS} už Jurgelionį ir taip pat pareikalavo 600 šėrų. [J. Šmotelis 229]

'Grigaitis didn't want to be lesser^{INS} than Jurgelionis and likewise demanded 600 shares.'

One might suppose that the instrumental is triggered by negation in these two examples, but against this reasonable suggestion argue two considerations: negation seems relatively ineffectual in other contexts in Lithuanian (for example, it does not seem to trigger instrumental of nouns with the past tense of *būti*); and the negation here is indirect, applying not to the immediate host *būti* but to its matrix predicate. A discrepancy in frame of reference is unlikely for (19), since the child is in effect quoting the interpretation of his mother should he fail to find gainful employment. More plausibly, then, the instrumental represents individualization of the adjective—what the child could not allow himself to do was to become a member of the class of things defined by the property of superfluity. This interpretation is supported by the fact that *nereikalingu* is an elliptical quotation of an instrumental noun (*būti nereikalingu pilvu*). One could think of (20) as involving either perspectivization (this was only Grigaitis' view of the matter, a view not shared by the author), but more plausibly individualization (Grigaitis did not want to be a lesser partner in the business).

With nonfinite hosts, then, we have observed again that the instrumental occurs sporadically, but when it does, it signals individualization and perhaps perspectivization; a certain degree of aspectualization is built into the context of nonfinite hosts.

4. Predicatives and Lexical Predicate-Argument Relations. As the discussion above has demonstrated, adjectives rarely occur in the instrumental as predicatives in Lithuanian. For this reason the one context in which the instrumental predominates, even though that context occurs infrequently, stands out. When the controller of the predicative adjective is the direct object, the instrumental is normal, though agreeing case—accusative (or genitive, under negation)—is not excluded. The complete corpus for this context follows:

- (21) Jaunos meilės burtai, lygiai kaip ir troškimas darbuotis visuomenės labui, padaro žmogaus gyvenimą gražų^{ACC} ir prasmingą^{ACC}. [J. Ragauskas 63]

'The magic of young love, just like the desire to be concerned with the good of society, makes a person's life

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 beautiful^{ACC} and meaningful^{ACC}.'

- (22) Skrupulatais moralinėje teologijoje vadinami žmonės, kurie menkas nuodėmes laiko didelėmis^{INS}. [J. Ragauskas 404]

'In moral theology people who consider small sins great^{INS} are called 'scruple-izers'.'

- (23) Dievas, būdamas vienas, buvo ne visai laimingas, todėl jis sutvėrė žmones, kurie jį garbindami padarė laimingesniu^{INS}. [J. Ragauskas 237]

'God, being alone, was not entirely happy, therefore he made people, who in praising him made him happier^{INS}.'

- (24) [...] jie palaikė mus savaisiais^{INS}. [S. Vaupšasovas 93]

'[...] they took us as their own^{INS}.'

- (25) [...] išėjome, palikę sveikus^{ACC} visus įrengimus. [S. Vaupšasovas 96]

'[...] we left, leaving all their installations intact^{ACC}.'

- (26) Žinoma, lietuvių tautą kurfiurstai ir jų parankiniai laikė mažaverte^{INS}. [V. Kuzmickas 105]

'Of course, the electors and their henchmen considered the Lithuanian people insignificant^{INS}.'

- (27) [...] jį radau gyvą^{ACC} ir sveiką^{NOM}. [S. Vaupšasovas 62]

'[...] him I found alive^{ACC} and healthy^{ACC}.'

- (28) Jau neradau gyvo^{GEN} tėvo. [S. Vaupšasovas 65]

'I did not find my father alive^{GEN}.'

- (29) Aš dažnai matydavau jį tokį^{ACC}, koks yra to meto nuotraukose. [S. Vaupšasovas 98]

'I often saw him thus^{ACC} as he was in the pictures of that time.'

Overall, 4 of 9 examples were instrumental, making this the only context in which instrumental occurs with respectable frequency. The frequency of instrumental is even more impressive if one differentiates two subgroups of host predicates: *likti* 'leave,' *laikyti* 'hold, consider,' (*pa*)*daryti* 'make' had 4 of 6 instrumentals ((21)-(26)), while *matyti* 'see,' *rasti* 'find' had only agreeing case ((27)-(29)). Once the second subgroup is set aside (I return to the difference between the two subgroups below), there is a significant difference in case usage between transitive and intransitive hosts that are derivationally related or semantically comparable: the 4 out of 6 examples with transitive (*pa*)*daryti* 'make,' *laikyti* 'hold, consider,' and *palikti* 'leave' contrast with intransitive *darytis* (*pasidaryti*), *tapti* 'become' and *likti* 'remain,' which had only 3 instrumentals out of 42 examples. Let us consider what this difference in preference means.

The difference between transitive hosts, which take the instrumental regularly, and intransitives, which do not, would follow if the choice of predicative case were sensitive to the case of the controller (either in the strict sense of the morphosyntactic case or in the extended sense of the syntactic predicate-argument relation). While not implausible, this suggestion does not account for the behavior of predicatives governed by a passive host. When hosts that normally govern an object controller are passivized, the controller is of course the nominative syntactic subject. Yet even under this condition instrumental predominates:

- (30) Iš viso, man darėsi vis labiau įtartina ta aplinkybė, kad religijoje dievas dažnai padaromas visiškai priklausomu^{INS} nuo žmogaus valios. [J. Ragauskas 450]

'Above all, the fact that in religion God is often made entirely dependent^{INS} on man's will was becoming ever more suspicious to me.'

- (31) Trys pirmieji buvo laikomi aukštaisiais^{INS}, kuriuos baigę jaunuoliai galėjo gauti valstybines tarnybas, o filosofijos fakultetas—žemesniu^{INS}. [V. Kuzmickas 89]

'The first three were considered the highest^{INS}, since in finishing them young people could get state service jobs, and the philosophy faculty [was considered] lower^{INS}.'

Obviously, if case (or syntactic predicate-argument relations) were the determining factor, the strong preference for instrumental with transitive hosts should disappear in the passive. The fact that it does not should prompt us to look for the motivation in the lexical, rather than the morphosyntactic (or syntactic), predicate-argument relations.

It has become standard to think of predicates as imposing semantic roles on their arguments. Often these roles are thought of as discrete labels which, further, are in effect undefined primitives. While this strategy is adequate for some purposes, it is useful for the problem at hand to derive such roles indirectly from a particular conception of predicates under which predicates report a **history**, a series of states of the world over coordinates of time and circumstances. In addition to the fact that this descriptive metaphor for predicate semantics makes it possible to define aspectual notions in a natural way, lexical argument roles can also be defined: the **theme** is the entity whose changes of states or potential changes of states are reported by the predicate; the **domain** is the grid, or space, of states over which the theme changes or potentially might change (following approximately Jackendoff 1976 and Talmy 1986). Often the domain is a spatial one, but with a small amount of abstraction one can also think of predicateds themselves as domains: the predicative defines the space of states over which the theme selects its values, whether static or changing. The **agent** is an entity which is responsible for the particular series of states the theme occupies over time and circumstance; without the participation of the agent, the theme would not hold that particular series of states. Usually theme and domain are manifested as overt arguments of the predicate, but for some predicates the theme and/or domain may be implicit in the predicate. The semantic role of agent, in contrast, is not essential to every predicate. The roles of agent and theme can be projected onto the same argument, as they are with a large class of intransitive predicates ('run' and the like).

For the predicates of interest here, it would be natural to identify the accusative object of transitives like *(pa)daryti*, *laikyti* as theme and the nominative subject as agent. With intransitives like *tapti*, *likti*, and *darytis* (*pasidaryti*), the sole argument is the theme; that argument is not an agent, even under the generous definition of agent given above. With both transitives and intransitives, the predicative is domain.

To this point the accusative object of the transitive and the nominative subject of the intransitive have both been identified as

theme, a fact which provides no grounds for differentiating the behavior of the two. But the transitive predicate also has a distinct agent role; some entity is responsible for the fact that the theme takes the states that it does. The difference in case usage observed between transitive and intransitive hosts, then, appears to result from the additional presence of an agent.

Why should that be relevant? The agent, as defined above, is responsible for the fact that the theme holds the states it does. This means that the states of the theme are modally contingent on the agent: without the involvement of the agent, the theme could not be expected to occupy the reported states. This brings us back to the notion of aspectualization—temporal and modal contingency—mentioned above as one of the recurrent factors in case usage. What differs about this instance of it is only that it is thoroughly embedded in the lexical semantics of the predicate.

One way to express the effect of the presence of an agent on predicative case would be to think of the semantic structure of predicates as layered into an inner history (of the theme and its series of states over time and circumstances) and an outer history (at which agency is reported). In the transitive *(pa)daryti*, the two layers are clearly distinct; in the intransitive *darytis* (*pasidaryti*), the outer layer is empty. The extreme proclivity of transitives to take instrumentals in their predicatives, then, could be ascribed to the fact that, with transitives, the inner history of the theme is contingent on the outer history of the agent.

The notion of the inner history of the theme can be used to account for the diversity in behavior observed within the class of transitive hosts governing a predicative. Predicates *(pa)daryti* 'make,' *laikyti* 'hold, consider,' and *palikti* 'leave' had 4 instrumentals out of 6 examples ((21)-(26) above), while *matyti* 'see' and *rasti* 'find' ((27)-(29) above) apparently take only agreeing case, accusative or genitive under negation (3 instances). Predicates of the first group report either a real change (*(pa)daryti*) or the frustration of an imminent possible change (*palikti*, *laikyti*) in the polarity of the predicative property at the level of the inner history. *Matyti* and *rasti* do not report a change, or even possible change, in the predicative property; they report at most a change in the property as present or absent in someone's frame of reference. For example, in (27) above, the individual did not undergo a change in the value of being alive in the reported event; he was only discovered in that state.

Thus, both the effect of lexical aspect on case variation and the differential effect of transitive and intransitive hosts on case can be

described in a unified framework. If the controller of the predicative is the theme of the host predicate and the host reports a history of the theme, then both agency and lexical aspect are naturally relevant to case.

5. Nouns and Adjectives as Predicatives. Comparison of case usage for predicative adjectives with usage (from the same texts) for predicative nouns (Timberlake 1988) at first blush appears to confirm the longstanding observation that case variation is strongly affected by the lexical part of speech of the predicative: adjectives occur in the instrumental with great infrequency, while nouns are considerably more susceptible to the temptation.

The situation is perhaps more complicated, however, if one draws a distinction between two kinds of nouns. **Descriptive** nouns merely identify an individual with certain properties; examples are *asmuo* 'person,' *žmogus* 'person, man,' *kūrinys* 'creation,' *reikalas* 'matter, inclusion,' *atkūrimas* 'revitalization.' **Restrictive** nouns, in contrast, do two things: they partition the class of possible individuals and they describe the characteristic behavior of acting in a certain capacity, as a certain kind of individual. For example, nouns like *dainininkas* 'singer,' *artistas* 'artist,' *kunigas* 'priest,' *profesorius* 'professor,' *rektorius* 'rector,' *teisėjas* 'judge,' *mokytojas* 'teacher' are restrictive in this sense. Now partitioning the class of individuals with respect to some property is just individualization. And acting in a certain capacity implies modal and temporal contingency: without the exertion of energy, the property of being a member of that class would not hold; the property is subject to cancellation at any time. Hence acting in a certain capacity, according to the characteristic behavior patterns of a certain class of individuals, is an aspectualized property. Thus, restrictive nouns in predicative usage report individualized and/or aspectualized properties.

Given this lexical distinction in nouns, one finds that case usage for descriptive nouns approximates that of adjectives. Thus, for descriptive nouns, with the future, conditional, and imperative of *būti*, instrumental occurs in only 2 of 23 instances, for 09%, compared to 0 of 53 instances among adjectives; with the semiparticiple, instrumental of nouns occurs 2 times out of 11, or 18%, compared to 1 time out of 11 for adjectives; with the infinitive of *būti* governed by auxiliaries, instrumental of predicative nouns fails to occur among 7 chances, while adjectives show instrumental 2 times out of 26; and as noted earlier, in the past tense of *būti*, though only 2 of 365 adjectives were instrumental, only 1 of 142 descriptive (and descriptivized restrictive) nouns

occurs in the instrumental—not an appreciably different percentage. The only context in which case usage for descriptive nouns differs from case usage for adjectives is the context of strongly aspectualizing hosts (*tapti*, *darytis*), where descriptive nouns showed 11 instrumentals out of 16 instances, or 69%, while adjectives showed only 3 of 26. With the exception of this last context, case usage for descriptive nouns is comparable to that for adjectives.

This comparison suggests that it would unwise to place too much emphasis on the membership of the predicative in the lexical classes of adjective vs. noun per se, and that we should look instead at the semantic properties characteristically associated with these lexical classes. Both nouns and adjectives, used predicatively, report a property of an individual (the referent of the controller). Adjectives and descriptive nouns report unrestricted properties, and are likely to be used in the nominative. Restrictive nouns describe properties that are individualized and/or aspectualized, and for this reason more readily allow instrumental.

6. Conclusion. From the present study of case in predicative adjective and the parallel study of predicative nouns (Timberlake 1988) the outlines of a general description of case usage in predicatives begin to emerge. Above, case was shown to be correlated with any of three semantic processes in (32):

(32) SEMANTIC OPERATIONS FOR PREDICATIVE CASE

operation	relationship of ... to ..
individualization	property / individuals
aspectualization	property / coordinates
perspectivization	property / frames of reference

The three processes are analogous in that, for each, the instrumental is correlated with the contrast of the value of the property over some variable—individuals, coordinates, or frames of reference. Thus, under individualization, a property is presented for its ability to partition the class of individuals according to that property. Under aspectualization, two polarities of a property are contrasted over the coordinates of time and/or circumstances. Perspectivization evidently works in the same way: under perspectivization, the polarity of the state under the internal frame of reference is contrasted with its polarity under the external frame of reference.² In general, instrumental is correlated with semantic operations that impose a contrast of discrete values of properties over one or another variable: over the class of individuals generated by the property; over time and circumstances; or over

frames of reference. Nominative is correlated with absence of contrast.

These operations can apply to different levels of semantic structure—to the predicative relation itself; to the predicative in the context of its host clause; and to the predicative clause in its relation to the surrounding text. For example, in (11) above, aspectualization applied to each of these three levels; or, in (14) and (12) individualization applied to the predicative, but in *būdamas religingu* in (17) to the text level—the relationship of the predicative clause to its surrounding text. Since each of the three processes can apply on three levels, we have in effect nine semantic processes involved in case variation.

These various processes can work in an additive fashion—in fact, the evidence above suggests that the instrumental of adjectives is usually correlated with the presence of at least two operations: for example, aspectualization at three levels in (11); individualization at the predicative level and aspectualization at the predicative level in *tapo vienu* in (12) and (14); individualization plus predicative and textual aspectualization in (1). In some instances the effect of a process is predictable from overt, co-occurring properties of the context, but in some instances the presence of a semantic operation is not predictable—the application of the process is imposed by the choice of case. Thus, in (14) and (12) individualization and aspectualization are (mostly) predictable from the predicative (*vienas* used electively) and the aspectualizing host (*tapti*); the difference between (1), with *koks* used as an individualizing relativizer, and (4), with *koks* used as non-individualizing relativizer, would perhaps be predictable, but only from a complete semantic representation of the context; and the contrast between instrumental *būdamas religingu* ((17)) and *būdamas religingas* ((18)) is not predictable with any amount of context—the choice of case itself signals individualization.

Given the hypothesized existence of nine semantic processes (three processes applying potentially at any of three levels of structure), the question naturally arises how a choice of case is made in any specific instance. It seems a priori unlikely that all nine processes are actively involved in any given token of case selection. For one thing, the number of variables is probably too large to be manipulated in the amount of real time available for such decisions. For another, the factors often conflict in a given example. Hence if the speaker as encoder (or addressee, as decoder) made use of a standing formula that would weight the contribution of factors, in many examples the various factors

would cancel each other out. The result, then, would be a calculation of (let us say) a 10% chance of the instrumental for a noun, or a 2% chance of instrumental for an adjective in a specific example. From this it is difficult to understand how an instrumental would ever get chosen at all.

The problem with case choice in predicates here is a familiar problem that arises with all paradigmatic grammatical choices. On the one hand, paradigmatic grammatical choice can be shown, through the examination of a range of textual or metalinguistic data, to be correlated with a large number of recognizably distinct parameters, some syntagmatically determined or some paradigmatic and contextually free. On the other, for the reasons discussed above, any given token of choice cannot actively involve all of the variables that can be established over a large number of tokens of usage.

While no general solution to this problem is at hand, we might consider the following view of the matter. Suppose that the speaker does not operate with the full complement of variables that are potentially available (as established by metalinguistic investigation across many tokens of choice), but instead approaches the task of grammatical encoding with a reduced semantic representation. In this **current** semantic representation, the values of most potential variables are ignored and only a few are active; further, the variables are ranked. Then the speaker has to compare this reduced but structured semantic representation with some principle for correlating case with semantic value. (Correspondingly, the addressee's task consists of trying to reconstruct which variables, and their values, the speaker has in mind.) For the problem at hand, the general principle might be something like 'presence or absence of a contrast in the polarity of the property over some variable.' Case is then selected by comparing the reduced semantic representation, with its ranking of factors, to the general principle.³

Let us take two examples. In the contrast of (1) *ano gero, nuoširdaus vaikino, kokiui^{INS} jis buvo* 'that kind of good, warmhearted child, such as he had been ...' vs. (4) *darbščiam žmogui, koks^{NOM} buvo K. Donelaitis* 'hardworking man, such as was K. Donelaitis', most of the potential variables are inactive and hence ignored. The speaker, let us assume, approaches the task of grammatical encoding with a current semantic representation in which two variables are ranked high: the individualization of the adjective—is the predicative a pure property or a type of individual being relativized by *koks*?—and its aspectuality—is the predicative property aspectually open or is there a restriction over

time and circumstances? Evidently, a choice of instrumental, as in (1), is correlated with positive values of individualization and aspectualization, while a choice of nominative, as in (4), is correlated with negative or neutral values. Similarly, in the contrast between (17) and (18), most variables are neutral (perhaps the immediate host, semiparticiples *būdamos*, is aspectualized (Fraenkel 1925)); choice of nominative would assign neutral values for individualization, aspectualization, and perspectivization, and use of instrumental would be tantamount to assigning non-neutral values for some of these variables—in (17), individualization ('because I was this type of individual, other facts follow') and maybe aspectualization ('only during the time I was that kind of person').

In general, our metalinguistic list of variables represents the summation of all variables that can be established as potentially active on the basis of individual examples, but such a list does not constitute a model of how any specific instance of grammatical choice is made. In any given instance of selecting case, most of the potential variables are held constant; only a limited number of the potential variables are actively manipulated.

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NOTES

¹The two texts examined for case usage in predicative nouns (Timberlake 1988) are: J. Šmotelis, *Atsiminimų skirsnėliai* (Chicago, 1977, 246pp), an autobiographical description of first the life of Lithuanian peasants at the turn of the century and then of the life of Lithuanian immigrants in Chicago in the teens and twenties; and J. Ragauskas, *'Ite, missa est!'* (Vilnius, 1960, 488pp.), the autobiographical confession of a priest who suffered a crisis of faith and left the Church. For the present paper, these two texts plus two others were used: S. Vaupšasovas, *Neramiose sankryžose* (Vilnius, 1976, 270 pp.), a translation from Russian (by A. Alksiūnaitė and G. Žaliukas) of the memoirs of a Lithuanian partisan; and Vincas Kuzmickas, *Kristijonas Donelaitis* (Vilnius, 1983, 240pp), a publicistic biography of the eighteenth-century poet.

²Compare the observation in Nichols 1981b that evidentiality is one of the covert semantic values of the instrumental in Russian.

³An alternative would be to suppose that the speaker compares the current semantic representation with a small set of more or less fixed expressions—grammatical idioms, if one likes—and then evaluates the current representation as more like one or the other. For the problem at hand, one might assume two polar opposites like the totally descriptive *jis yra uolus*^{NOM} 'he is devoted' vs. thoroughly contrastive *jis dirbo agentu*^{INS} 'he worked as/in the capacity of someone who is an agent,' in which the various semantic values of individualization and aspectualization are maximally complementary.

THE SYNTAX AND SEMANTICS OF LITHUANIAN CURATIVE CONSTRUCTIONS¹

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0. Introduction. Given a Lithuanian transitive verb meaning 'to do' (e.g., Lithuanian *darýti*), suffixing the infinitive stem with the inherently unstressed morpheme *-din* results in a verb signifying 'to have (something) done' (cf. *darýdinti*—Kurschat 1968:410). Verbs that are suffixed with *-din* and convey this particular type of causative meaning are designated in Lithuanian linguistics and lexicography by the term *parūpinamieji veiksmāžodžiai* and/or its neo-Latin translation *verba curativa*.² The adjective *parūpinamieji* 'curativa' is derived from the verb *parūpinti* 'to procure, secure, see to,' which is occasionally used to paraphrase the meaning of these verbs (cf. Jakaitienė 1968:228 and 1970:175): *darýdinti* = "pasirūpinti, kàd kàs kã darýtu" 'to see to it that someone do something,' Latin "*curare* ut quis quid faciat," whence the grammatical term "curative" (likewise Lithuanian *kuratývinis*—Jakaitienė 1970:175).

This paper is intended as a contribution to a comprehensive description of the syntax and semantics of Lithuanian curative constructions, a description which, in my assessment of the available linguistic literature, has thus far been lacking. Towards this end, the paper is divided into four parts, dealing with the following questions: (1) the existence of two *-din* suffixes in the light of Senn's "active" versus "passive causative" dichotomy (Senn 1929); (2) valence; (3) diathesis, or the correlation between semantic and syntactic levels of analysis (i.e., between "participants" and "actants"—see Babby 1976:699-700); and (4) the syntactic expression of Direct Agents in curative sentences. In undertaking to describe curative constructions, I apply two theoretical frameworks: generative grammar (including certain semantic concepts afforded by government and binding theory and generative semantics, specifically, thematic roles [θ -roles] and the semantic primitive CAUSE, resp.) and the so-called "theory of

diatheses" (Russian *teorija diatez*) as elaborated by the Leningrad-based Structural Typology School.³ The application of more than one theoretical approach allows for a fuller description than either theory alone can provide, while at the same time obviating certain problems that Lithuanian curative constructions pose for for one or the other theoretical analysis (see below).

It is appropriate here to make some final introductory remarks regarding the question of productivity. As I pointed out in Toops (In press), from the standpoint of lexical derivation, *-din*-suffixation is not as productive as the works of non-native Lithuanian scholars would lead one to infer (see especially Stang 1941:187, cited also in Toops [In press]). An important point not explicitly made by previous scholars is that only native Lithuanian infinitive stems can be suffixed with *-din* for the expression of curative meaning. Thus, a newly created verb, or a verb of perceptibly foreign origin like *(nu)fotografuoti* 'to photograph,' does not lend itself to *-din*-suffixation, even though the need to convey the notion "to have (someone/oneself) photographed" obviously arises. Rather than express curative meaning by means of a verb **(nu)fotografuodinti*, contemporary Lithuanian, like Russian, has recourse to the "contextual" expression of curative meaning (see Toops 1987). The proposition "I'm having myself photographed," therefore, is expressed as *Àš fotografuojuos (pàš fotogrãfã),* literally 'I'm photographing myself (at the photographer's)' (the parenthetical expression of the "service provider" at whose place of business the activity is performed provides a context which reduces the chances that the sentence will be misperceived by the recipient of the message in a noncurative sense). The ability to convey curative meaning contextually is limited to verbs denoting (what is generally perceived to be) a professional, service activity (cf. Geniušienė 1978:665);⁴ otherwise, a periphrastic construction with curative meaning can be formed by means of derivatives of the verb 'to give' *įduoti/atiduoti* + infinitive (cf. Russian *otda(va)t'* + infinitive constructions with this same meaning in Toops 1988:243-45 and Section 4 below).⁵ Conversely, this means that, given a verb which is native Lithuanian and which at the same time denotes a

service activity, curative meaning can be expressed in three different ways: (1) by means of a *-din*-suffixed verb form, (2) by context, and (3) by periphrasis.

- (1) Móteris nóri suknėlę pasiūdinti.
WomanNOM wants dressACC to-have-sewn.
'The woman wants to have a dress sewn.'
- (2) Móteris nóri suknėlę pasiūti (pàs siuvėją, ateljėjė).
WomanNOM wants dressACC to-sew—
'The woman wants to have a dress sewn (at the seamstress's, at the dress shop).'
- (3) Móteris nóri įdúoti suknėlę pasiūti.
WomanNOM wants to-consign dressACC to-sew
'The woman wants to have a dress sewn.'

However, given the established dichotomy between unproductive, lexical causatives and productive, morphologically regular causatives (Shibatani 1976:2-3), it would be wrong to relegate Lithuanian curative verbs to the former category. The above-mentioned lexical constraints notwithstanding, curative verb derivation is completely transparent—morphophonologically (i.e., both segmentally and suprasegmentally), syntactically, and semantically. This observation is supported by the following considerations:

(a) Curative verb formation is restricted to the suffix *-din* (or, correspondingly, in the dialects of the Dzūkai and Western Aukštaičiai, *-dy*—LKG 1971:265). Curative verbs preserve throughout their paradigms (without exception) the stress of the infinitive stem of the basic verb from which they are derived (i.e., curative verbs have strictly fixed stem stress).

(b) Curative verbs, like the corresponding basic verbs when used to convey curative meaning by contextual means (see example (2) above), exhibit the same syntactic constraint on the occurrence of the accusative reflexive pronoun *savè* as a direct object (thus, it is no more possible to express 'to have oneself shaved [i.e., 'get a shave']' as **skùsdinti savè* than it is to express the same meaning contextually as **skùsti savè [pàs kirpėją]* 'to

have oneself shaved [at the barber's]—see Toops [In press] and 1987:607).

(c) Although the existence of a verb **(nu)fotografuodinti* 'to have (something/someone) photographed' is not attested, according to one informant, its derivation, however artificial it may seem to a native speaker of contemporary standard Lithuanian, remains "theoretically imaginable" (Venclova, personal communication), and such a verb form would certainly be understood in its intended (curative) meaning.⁶

1. **"Active" vs. "passive causatives."** Senn (1929:236-37) cited two types of causative verbs—"aktive Kausativa" and "passive Kausativa"—formed by means of *-in* and *-din*-suffixation, resp. He established this distinction on the basis of his observation that the former express the meaning "die Handlung des betreffenden primären Tätigkeitswortes hervorbringen oder veranlassen" ('to bring about or induce the action of the corresponding basic verb'), while the latter express the meaning "machen, daß etwas getan, angefertigt wird" ('to see to it that something be done, manufactured'). Although Senn made no further attempt to justify his terms, the terms "neveikiamieji priežastiniai veiksmāžodžiai / verba causativa passiva" have nonetheless made their way into contemporary Lithuanian linguistics, coexisting, as it were, with "parūpinamieji" or "kuratýviniai veiksmāžodžiai / verba curativa" (see note 2). As explained in Toops 1987:602ff., the dichotomy—active vs. passive causatives—can be justified within a generative framework. This is demonstrated below. First, however, a few comments on the (for the time being, putative) "active causative" suffix *-in* are in order.

In the historical development of Lithuanian, the suffix *<-in>* originally had an allomorph *-din* which occurred with infinitive stems ending in a vowel; an automatic phonological rule operated to eliminate hiatus between the final vowel of the infinitive stem and the suffix *-in* (Otrębski 1965:413, Stang 1966:374): *valgy-ti* 'to eat' → **valgy-in-ti* → *valgy-din-ti* 'to feed (i.e., to have [someone] eat).' Over time, however, this type of *-din*-suffixation lost some of its transparency and became more and more opaque, so that while *-din* in contemporary Lithuanian still occurs

automatically after stem-final vowels (cf. Jakaitienė 1970:175-76), it may also occur, irregularly, after stem-final **consonants**. This has created in the modern language a confused situation not only where synonymous pairs of suffixally derived transitive verbs occur (e.g., *lipinti* and *lipdinti* 'to glue, stick [i.e., make (something) stick]' < *līpti* 'to stick, adhere [intransitive],' *sproginginti* and *sprogdinti* 'to burst [i.e., make (something) burst]' < *sprógti* 'to burst [intransitive],' *bėginti* and *bėgdinti* 'to let/make [someone/something] run' < *bėgti* 'to run'), but also where an historically unjustified *-din*-suffixed form is the only one attested (e.g., *žėldinti* 'to grow [i.e., let (something) grow],' *but not *žėlinti* < *žėlti* 'to grow [intransitive]'; cf., however, *nužilinti* 'to let/make [someone('s hair)] turn completely grey,' but not **nužildinti* < *nužilti* 'to turn completely grey').

Note that, as the verbs *valgydinti*, *lipdinti*, *sprogdinti*, and *bėgdinti* demonstrate, this *-din* allomorph of <*-in*> can be stressed, unlike the curative *-din* (according to Senn 1929:236, "stets unbetont") discussed in the Introduction above. Thus, in the case of *valgydinti*, we may view the verb as morphophonemically (suprasegmentally) marked for noncurative meaning, since only a theoretically imaginable **válgydinti* could conceivably signify 'to have (something) eaten' (conversely, verbs without stress on the suffix *-din* are morphophonemically unmarked, hence potentially ambiguous, if they are derived from basic transitive verbs—see note 6).⁷

I propose the following S-structures for sentences containing a basic intransitive verb and sentences containing the corresponding transitive verb derived through *-(d)in*-suffixation:

bėgti 'to run' → bėg(d)inti 'to let/make (someone/
something) run'

- (4) Žirgas bėga.
[S[NP žirgas][VP bėgti]]
'The horse is running.'

- (5) Žmogùs bėg(d)ina žirga.
[S[NP žmogùs][VP CAUSE [S[NP žirgas][VP bėgti]]]]

'The man is making the horse run.'

The semantic primitive CAUSE in the S-structure of sentence (5) serves a twofold purpose. First, from the viewpoint of government and binding theory, it assigns the θ -role Indirect Agent to the subject *žmogùs* 'man' (an Indirect Agent, as opposed to a Direct Agent, being a participant which only "indirectly" performs a particular action, i.e., by causing it to be performed by someone/something else). Second, from the viewpoint of generative semantics, it meets the goal of capturing the synonymy and entailment relations that obtain between morphological and periphrastic causative constructions. For example, the semantics of sentence (5), containing the morphological causative *bėg(d)inti* (defined in Kruopas et al. 1972:75 as "*versti bėgti*" 'force to run'; see also Jakaitienė 1968:225 and 228), can be expressed periphrastically by means of the analytic causative construction *ver̃sti* + infinitive as in sentence (6), for which the same S-structure is posited:

- (6) *Žmogùs ver̃čia žirgą bėgti.*
 [S[NP *žmogùs*][VP CAUSE [S[NP *žirgas*][VP *bėgti*]]]]
 'The man is making the horse run.'

Note that the foregoing analysis is based on the following statement of generative semantic theory put forth by Shibatani (1975:5-7): "[T]he underlying structure and the surface structure are mediated essentially by two types of transformations, Predicate Raising and Lexical Insertion.... Predicate Raising may not apply all the way... and as long as the lexicon provides morphemes that have structures matching amalgamations of predicates under one node, the amalgamation of predicates may be replaced by a morpheme at any level.... [T]here is no significant and uniform level between underlying structure and surface structure where lexical insertion takes place and where no transformation has yet applied." Thus, in the generation of sentence (5), a Predicate Raising transformation occurs before Lexical Insertion, yielding -CAUSE *bėgti*-, for which the lexicon

provides morphemes to produce *bég(d)inti*.⁸ In the generation of sentence (6), Lexical Insertion operates first, before Predicate Raising, so that *veĩsti* is inserted into the VP occupied by CAUSE. (See Section 2 below for discussion of case hierarchy and the syntactic demotion of subject to object position.)

Although the "active" causative suffix *-(d)in* serves "most often" to derive transitive verbs from basic intransitives (Jakaitienė 1968:227-28), this same suffix occurs as well with the infinitive stems of a number of basic **transitive** verbs: *valgydinti* 'to feed (i.e., have [someone] eat)' < *válgyti* 'to eat,' *vėsdinti* (Kurschat 1973:2668 cites *vėsdinti*) 'to get (someone) to marry' < *vėsti* (*mergáite*) 'to marry, take (a young woman) in marriage' (also *vėdinti* < *vėsti* [morphophonemically <ved-ti>]), *lėsdinti/lėsdinti* 'to have (an animal) peck' < *lėsti* 'to peck,' *dainúodinti* (LKŽ 2:230, Kurschat 1968:400) 'make (someone) sing' < *dainúoti* 'to sing.'

For sentences containing a basic transitive verb and sentences containing the corresponding causative (likewise transitive) verb derived through *-(d)in*-suffixation, I propose the following S-structures:

válgyti 'to eat' → *valgydinti* 'to feed, have (someone) eat'

- (7) *Vaikaĩ válgó.*
 [S[NP *vaikaĩ*][VP[V *válgyti*][NP *e*]]]
 'The children are eating.'
- (8) *Mótina valgydina vaikùs.*
 [S[NP *mótina*][VP CAUSE [S[NP *vaikaĩ*][VP[V
válgyti][NP *e*]]]]]
 'Mother is feeding the children.'

We are dealing here with the causativization of basic transitive verbs that are frequently used intransitively, such usage being syntactically marked by the nonoccurrence of a direct object (reflected in the above S-structures by the lexically empty [NP *e*]): cf. the omissibility of direct objects with transitive verbs in English sentences of the type "He hasn't eaten (anything) yet,"

"He hasn't married (anyone) yet." Common to the S-structures of sentences (5), (6), and (8) is the fact that the lexical NP in the embedded S (*žirgas* 'horse,' *vaikai* 'children') is consistently **agentive**. In other words, the S embedded in the VP CAUSE is regularly an active sentence. For this reason, Senn's use of the term "active causative" to designate Lithuanian verbs of the type represented in sentences 5 and 8 is justified within a generative framework. It remains to be seen whether the term "passive causative" adequately describes the meaning expressed by curative *-din* (N.B.: not *-(d)in!*) suffixed verbs. (This is in keeping with Stang's observation, "Im Lit. hat sich der Typus auf *-dina* von demjenigen auf *-ina* losgerissen, und eine spezielle Funktion angenommen" [1942:186].)

Let us first remind ourselves that curative verbs express the meaning 'to have (something) done,' while the noncurative, "active" causatives discussed above express the meaning 'to have (someone) do.' Thus, Lithuanian and English are similar in distinguishing between the two meanings in surface structure, while most Germanic and Romance languages, for example, do not (German "Die Mutter läßt die Kinder essen" [likewise French "La mère fait manger les enfants"] is, unlike Lithuanian "Mótina valgydina vaikùs," potentially ambiguous, since it may be generated by two different underlying structures: either [S[NP[DET die][N Mutter]][VP CAUSE[S[NP[DET die][N Kinder]][VP[V essen][NP e]]]]] 'The mother is having the children eat' or [S[NP[DET die][N Mutter]][VP CAUSE[S[NP e][VP[V essen][NP[DET die][N Kinder]]]]]] 'The mother is having the children eaten'). Therefore, for sentences containing a basic transitive verb and sentences containing the corresponding curative verb formed by means of *-din*-suffixation, I tentatively propose the following S-structures:

siùti 'to sew' → siūdinti 'to have (something) sewn'

- (9) Móteris siùva suknėlę.
 [S[NP móteris][VP[V siùti][NP suknėlė]]]
 'The woman is sewing a dress.'

- (10) Móteris siūdina suknėlę.
 [S[NP móteris][VP CAUSE [S[NP e][VP[V siūti][NP
 suknėlė]]]]]
 'The woman is having a dress sewn.'

The S-structure of curative sentence (10) differs from that of active causative sentence (8) by virtue of the fact that the embedded S under CAUSE in (10) contains a lexically empty subject (directly agentive) NP, while that in (8) contains a lexically empty direct *object* NP (because the woman is not having a dress sew something, but is instead having [an unexpressed] someone sew the dress). On the other hand, it may well be argued that there is no lexically empty subject NP in the underlying structure of sentence (10) at all; that the S embedded under CAUSE should actually be passive with no empty categories in the syntax (as shown in Section 2 below, the Lithuanian data do in fact support such an argument), cf. example (11):

- (11) Móteris siūdina suknėlę.
 [S[NP móteris][VP CAUSE[S[NP suknėlė][VP[INFL
 būti][V siūti* t]]]]]
 'The woman is having a dress sewn.'

However, the argument at this point is moot for two reasons. First, according to Chomsky (1981:54), a passive S like that in example (11) turns out to have a lexically empty subject NP in D-structure in any case, cf. example (12):

- (12) [S[NP e][INFL būti][VP siūti* suknėlę]]

Second, since in this section I am concerned with justifying Senn's terminological distinction between "active" and "passive" causativity, the actual syntactic (subject or object) status of the lexical NP (*suknėlė*) is irrelevant. Of concern here rather is the *semantic* status of that NP (i.e., the θ -role assigned to it).

Therefore, regardless of whether we posit an embedded active S with lexically empty subject NP, as in example (10), or an embedded passive S with no lexically empty NP, as in example (11), the salient feature of either S is the nonagentive semantic function (θ -role Patient) of the NP *suknėlė*. To this extent, Senn's term "passive causative" is justified within a generative framework as a designation for the meaning expressed by Lithuanian curative verbs.

To further summarize the contents of this section, we may state that noncurative *-(d)in*-suffixed verbs differ from curative *-din*-suffixed verbs in the following ways:

(a) noncurative causative verbs express the active causative meaning 'to have (somebody) do'; curative verbs express the passive causative meaning 'to have (something) done.'

(b) noncurative causative verbs (specifically, those derived from infinitive stems ending in a consonant) are irregularly suffixed with *-in* and/or *-din*; curative verbs are regularly suffixed with *-din*.

(c) noncurative causative verbs suffixed with *-din* may occur with stress on the suffix; curative verbs never have stress on the suffix.

(d) the lexical NP of the embedded S under CAUSE in the underlying structure of active causatives is agentive (i.e., assigned the θ -role Direct Agent); the lexical NP of the embedded S under CAUSE in the underlying structure of passive causatives (i.e., curatives) is nonagentive, hence what I propose to call "patientive" (i.e., assigned the θ -role Patient—cf. Toops 1987:602-603, 607-608).

(e) active causative verbs are formed primarily from basic intransitive verbs, but may also be formed from basic transitive verbs; curative verbs are formed exclusively from transitive verbs, which, however, may be either basic or derived (i.e., through previous stem suffixation, cf. note 4).

2. Valence. Valence is defined, in generative terms, as the number of NP arguments for which a given verb is subcategorized. Within Tesnière's theory of structural syntax (1959) as well as the more recent theory of diatheses (hereafter

“TD”), causativity (or “causativization”—Babby 1981:1) is defined as a valence-increasing operation. In terms of syntactic surface structure, causativity entails the addition of a new actant (subject NP) whose semantic function (θ -role; in TD terms, participant status) is that of Indirect (i.e., causing) Agent (symbolized K [for “Kausator”] in TD notation—see Löttsch, Fiedler, and Kostov 1976:68ff.). In Lithuanian, as in Turkish and the modern Germanic and Romance languages, this new actant is syntactically expressed as the subject of the sentence, with the result that, given a certain actantial (or case) hierarchy, the subject of the basic, noncausative sentence is demoted to direct object position (see Comrie 1976b:262-64). This is seen in comparing sentence (4) with sentence (5), repeated here as (13) and (14):

žirgas ‘horseNOM’ → *žirgą* ‘horseACC’

- (13) *Žirgas bėga.*

horseNOM runs

‘The horse is running.’

- (14) *Žmogùs bėg(d)ina žirgą.*

manNOM run-causes horseACC

‘The man is making the horse run.’

We may observe the same phenomenon in comparing sentence (7) with sentence (8), repeated here as (15) and (16):

vaikai ‘childrenNOM’ → *vaikùs* ‘childrenACC’

- (15) *Vaikai valgo.*

childrenNOM eat

‘The children are eating.’

- (16) *Mótina valgydina vaikùs.*

motherNOM eat-causes childrenACC

‘Mother is feeding the children.’

With respect to curative constructions, however, we see that there is no demotion of a nominative subject to accusative direct object position, unless a (noncausative) passive sentence is taken as the basic construction from which the curative is derived. Compare sentence (17) with sentence (10), repeated here as (18):

suknēlē 'dressNOM' → *suknēlē* 'dressACC'

- (17) *Suknēlē* (*yrà*) *siuvamà*.
 dressNOM (is) being-sewn
 'A dress is being sewn.'
- (18) *Móteris siūdina suknēlē*.
 womanNOM sew-causes dressACC
 'The woman is having a dress sewn.'

This analysis proves to be of minimal utility, however, when we consider that noncurative active sentence (9) (repeated here as (19)) could, by the same reasoning, likewise be "derived" from passive sentence (17):

suknēlē 'dressACC' ?< *suknēlē* 'dressNOM'

- (19) *Móteris siùva suknēlē*. (?< *Suknēlē* [*yrà*] *siuvamà*.)
 womanNOM sews dressACC
 'The woman is sewing a dress.'

Preferable here is an analysis applicable to Turkish and the modern Romance languages: if the basic active construction has a direct object (for Turkish, accusative) NP, that direct object retains its syntactic slot, and the original Direct Agent (if expressed at all) is demoted to some other position further down the actantial hierarchy (typically, to [dative] indirect object position). I repeat here sentences (19) and (18), with French translations:

suknēlē 'dressACC' = *suknēlē* 'dressACC'

- (19) Móteris siùva sunkēļę.
 'La femme coud une robe.'
 The woman_{Sb} sews a dress_{DO}
- (18) Móteris siūdina suknēļę.
 'La femme fait coudre une robe.'
 The woman_{Sb} makes to-sew a dress_{DO}

Returning now to the question of valence, the discussion undertaken here will show that Lithuanian curative constructions pose problems not only for the concept of causativity as a valence-increasing operation, but also for the notion of lexically empty categories inherent in the generative analyses proposed in Section 1. In the general linguistic literature these problems have already been addressed by Babby 1981 in his treatment of analogous passive causative constructions in Turkish. He states, "It is very common for the subcategorized or 'old' subject to remain unspecified (cf. 'agentless passives')," and provides the following examples (1981:15), cited here as (20) and (21):

- (20) (Ben) saat-im-i [tamir et-tim]V
 I watch-poss-acc fix-past
 'I fixed my watch.'
- (21) (Ben) saat-im-i [tamir et-tir-dim]V
 I watch-poss-acc fix-caus-past
 'I had my watch fixed (i.e., I had [someone=Ø] fix my watch).'

According to Babby (1981:15), "[t]he existence of sentences like... [21] and the fact that they are so common in all styles of Turkish is a problem for syntactic analyses in which a rule simultaneously adds a NP to the derivation and marks this expansion of the verb's valency with -Dir-: this analysis requires that we add a dummy or pro NP meaning 'unspecified person,' and then obligatorily delete it." I propose here to make the same point with respect to Lithuanian curative constructions. Unlike Babby 1981, however, I will not adduce a new theoretical

analysis to account for them, but rather rely on the explanatory force of TD (see Section 3), since my concern in this paper, as stated above (see Introduction), is to provide only a description of Lithuanian curatives. Ultimately, however, my description of Lithuanian *-din-*suffixed verbs will lead to the same conclusion at which Babby arrived in his analysis of Turkish *-Dir-*suffixed verbs (see Conclusions below): "A rule that adds *-Dir-* to a verb, creating a new, derived verb is not an operation on syntactic structures; it is a *lexical* operation because its domain is confined to a single word, not a phrase marker" (1981:29).

We have already observed that *-(d)in-*suffixation derives two-place (bivalent) transitive verbs (cf. sentences (4), (5), (7), (8) and (13)-(16)) from one-place (univalent) verbs. This observation is obfuscated, however, by the verbs *valgydinti* 'to feed,' *vėsdinti/vėdinti* 'to get (a man) to marry,' *lėšinti/lėsdinti* 'to feed (a bird),' *dainuodinti* 'to make (someone) sing,' which I classified in Section 1 as derivatives of basic transitive verbs and whose underlying structural analysis entailed my positing a lexically empty direct object NP (see example (8)). The only immediately apparent solution to this problem is to adopt a traditional lexicographic approach to the verbs *válgyti* 'to eat,' *lèsti* 'to peck,' *dainuoti* 'to sing,' etc., and classify them as being both bivalent, transitive verbs (cf. *válgyti dúoną* 'to eat bread,' *lèsti grūdus* 'to peck grains/kernels,' *dainuoti dānā* 'to sing a song') and univalent, intransitive verbs (cf. *vaikai vālgo* 'the children are eating,' *žāsys lēsa* 'geese peck/the geese are pecking,' *tās žmogūs geraī dainuoja* 'that man sings well'). This is, in fact, the approach adopted by the Lithuanian Academy Dictionary and most English-language dictionaries (see, for example, LKŽ 2:230, 7:378, and AHD 1980:985, 1980:1208) as well as Mel'čuk (1974:353), who states, with respect to Russian verbs of the type *čitat* 'to read,' *verit* 'to believe,' *pet* 'to sing,' etc., that "a direct object is syntactically optional" (see Xrakovskij 1981:14ff. for discussion of obligatory [*objazatel'nye*] and optional actants [*fakul'tativnye aktanty*]).⁹ By adopting this approach, we need no longer have recourse to the empty-category analysis exemplified by S-structures (7) and (8) (see Section 1). The first statement of this paragraph may therefore be revised to the effect that *-(d)in-*

suffixation derives bivalent, transitive verbs from both obligatorily and optionally univalent, intransitive verbs (lexical constraints notwithstanding).¹⁰ Thus, *-(d)in*-suffixation regularly conforms to the conception of causativization as a valence-increasing operation.

The same cannot be said of Lithuanian *-din*-suffixed, curative verbs. In order to demonstrate that curative verb derivation is not a valence-increasing operation, I will first attempt to increase the actantial structure of *Móteris siūdina suknėlę* 'The woman is having a dress sewn.' As will be shown, either the participant status of the added actant proves to be identical to its participant status in the noncausative sentence *Móteris siūva suknėlę* 'The woman is sewing a dress,' or the occurrence of the added actant will result in an infelicitous sentence. In no instance can the occurrence of any such actant in surface structure be generated by lexicalization of the empty NP ([NP e]) in the underlying structure proposed in example (10) (Section 1), repeated here as example (22):

- (22) *Móteris siūdina suknėlę.*
 [S[NP *móteris*][VP CAUSE[S[NP e][VP[V *siūti*][NP
suknėlė]]]]]
 'The woman is having a dress sewn.'
 (i.e.: 'The woman is having [someone=Ø] sew a dress.')

I will then **reduce** the actantial structure of *Móteris siūdina suknėlę* 'The woman is having a dress sewn' by means of two "recessive" (Sil'nickij 1974:55) grammatical operations: *-si-*affixation ("reflexivization") and passivization. Since these operations are the reverse of causativization, the resulting sentence with reflexive/passive verb forms should theoretically be noncausative (Geniušienė 1978:657). We will see, however, that after undergoing such grammatical operations, the curative sentence ((22) above) nonetheless retains its passive causative meaning.

With reference to French and Turkish causative constructions, Comrie has noted: "The surface exponency of the embedded subject (provided that it is not omitted) depends on the syntactic

arguments of the embedded verb. If it has no direct object, then the embedded subject appears as direct object; if it has a direct object but no indirect object, then the embedded subject appears as indirect object; if it has both a direct and an indirect object, then the embedded subject appears as one of the other oblique cases (i.e., neither subject nor direct object nor indirect object). More generally, if we order these four syntactic positions as follows: ... Subject - direct object - indirect object - other oblique constituent ... then we find that the embedded subject is shifted from left to right along this list to the leftmost position that is not occupied. It is clearer to consider this ordering as a hierarchy, with subject at the top and other oblique constituents at the bottom; then we can say that the embedded subject is demoted from subject position down the hierarchy to the next-highest available position (position that is not yet filled)" (1976b:263). Comrie further points out that "[t]his hierarchy is not valid solely for causative constructions.... The evidence from causative constructions shows that there is independent confirmation for the hierarchy from a different area of syntax; while within the analysis of causative constructions, we can systematize our description by using a descriptive tool of general linguistic theory whose validity has already been proved elsewhere" (1976b:263-64).

If we now consider the underlying structure proposed for curative sentence (22) above, we see that the embedded verb has a direct object ([NP *suknėlė*]), but no indirect object. Therefore, one might expect that increasing the surface actantial structure of sentence (22) by means of an indirect object, e.g., *dùkteriai* 'daughterDAT,' could result from lexicalization of the embedded subject NP ([NP *e*]) in the underlying structure. While this same operation holds true of French and a number of other languages, it does not hold true for Lithuanian:

- (23) *Móteris siūdina dùkteriai sukneļę.*
 'The woman is having a dress sewn *for (her) daughter.*'

Note that the literal French translation of Lithuanian sentence (23), "La femme fait coudre une robe à sa fille" signifies 'The

woman is having her daughter sew a dress' and, unlike the Lithuanian sentence, can be generated by an S-structure with no lexically empty NPs on the order of [S[NP femme][V P CAUSE[S[NP fille][VP[V coudre][NP robe]]]].¹¹

English passive-causative constructions of the type "The woman is having a dress sewn *by the seamstress*" share with noncausative passive constructions the ability to express Direct Agents in the surface syntax as objects of the preposition *by* (cf. "A dress is being sewn *by the seamstress*"). Agents in (contemporary) Lithuanian passive constructions are expressed by means of the genitive case without prepositional governance: cf. *Suknėlė (yrà) siuvamà siuvėjos* 'The dress is being sewn by a seamstress.' In Lithuanian curative constructions, the genitive case of a noun cannot perform this same semantic function (contrary to what one would expect had one definitively accepted the embedded passive-S analysis of example (11) in Section 1 above). Cf. the ungrammaticality of sentence (24):

- (24) *Móteris siūdina suknelę *siuvėjos*.
 'The woman is having the dress sewn *by a seamstress*.'

Thus, for the expression of Direct Agent in the surface syntax of Lithuanian curative constructions, neither of the possibilities suggested by cross-language syntactic typology exists.

"In natural languages," according to Geniušienė (1978:657), "two opposing derivational processes can be identified: on the one hand, an increase in the valence of a verb (predicate raising); on the other hand, a decrease (predicate lowering). The former is primarily instrumental in the derivation of causative verbs (cf. Lithuanian *Sugėdo laikrodįs* 'The clock broke' → *Sugad-in-aũ laikrodį* 'I broke the clock' [i.e., 'I made the clock break'—GHT]), the latter for the derivation of formally reflexive verbs (cf. Lithuanian *Sugadinaũ laikrodį* 'I broke the clock' → *Su-si-gadino laikrodįs* 'The clock broke')... The main function of a causative morpheme is to impart causative meaning to the semantics of the initially chosen verb (see the first example above). A reflexive morpheme, in contrast, can have, among

other things, a decausativizing function, i.e., it can eliminate the causative component from the semantics of the initially chosen verb (see the second example above, which, as concerns the direction of semantic derivation, represents to a certain extent a mirror image of the first).¹² In view of the foregoing statements, it is worth considering what semantic changes are observable when curative verbs undergo formal reflexivization. As far as an actual decrease in the actantial structure of sentence (22) is concerned, only two meanings emerge, neither of which is noncausative; cf. examples (25) and (26):

- (25) Suknēlė lengvāi siūdinasi.
 dressNOM easily sew-causes-reflexive
 'A dress is (can be) easily "gotten sewn".'
 (i.e.: 'One can easily have a dress sewn.')
- (26) Daūg suknelių pasisiūdino.
 many dressesGEN perfective-reflexive-sew-caused
 'Many dresses were "gotten sewn".'
 (i.e.: 'People [unexpectedly] had [managed to have] lots of dresses sewn.')

Geniušienė (1978:664-65) labels *-si*-affixed verbs of the above (semantic) type "quasipassive reflexives," which, according to her, include "modal-passive reflexives" (sentence (25)) and "resultative-passive reflexives" (sentence (26) above).

"Submitting" curative verbs to a further recessive (i.e., valence-reducing) operation, viz., passivization, likewise fails to result in the elimination of causative meaning (illustrated above by Geniušienė with the *-(d)in*-suffixed example *sugadinti*). Consider example (27):

- (27) Suknēlė (yrà) siūdinama.
 dressNOM (is) being-sew-caused
 'A dress is being "gotten sewn".'
 (i.e.: '[Someone] is having a dress sewn.')

Finally, note should be taken of the fact that introducing an actant in the genitive case into the surface structure of passivized curative sentence (27) does not result in the expression of a Direct Agent (i.e., the person who is actually sewing the dress), but rather results in the expression of the "previously omitted" Indirect Agent. Thus, passive sentence (28) below is semantically equivalent to active sentence (22) above:

- (28) Móteries (yrà) siūdinama suknėlė.
 womanGEN (is) being-sew-caused dressNOM
 'A dress is being "gotten sewn" by the woman.'
 (= [22] Móteris siūdina suknėlę 'The woman is having a dress sewn')

To conclude this section, we have seen that the syntax of curative constructions, in terms of valence (as well as case hierarchy and the semantic status of actants [in the dative and genitive cases] introduced secondarily into the surface structure), is identical to that of the corresponding (active, reflexive, or passivized) noncausative constructions.

3. Diathesis. Since Lithuanian curative constructions, as we have seen, do not lend themselves to adequate generative analyses, in this section I will describe curative derivation in terms of diathesis. In so doing, I adopt linear, conjoined-block notation introduced by Löttsch, Fiedler, and Kostov 1976 (cf. also Xrakovskij 1981 for a slight variation on this notational system): each block represents a semantic or syntactic constituent, semantic constituents being arrayed in a row of blocks superimposed on another row of blocks which individually symbolize the surface syntactic expression of the semantic constituent in the block superimposed directly above it. The constituents are symbolized by letters. Semantic constituents are represented (in the top row) by: A = Direct Agent, K = Indirect Agent ("Kausator"—see Section 2), P = Patient, Ad = Addressee (Beneficiary, Recipient, or "Goal of Action"), X = Circumstant (adverbial/prepositional phrase/modifier). Syntactic constituents are represented (in the bottom row) by S = subject (not to be confused with S for "sentence" in generative bracketing notation), Od = direct object,

O_i = indirect object, O_a = "passive agent" (i.e., oblique constituent notationally superimposed with A or K, e.g., Lithuanian noun in the genitive case, English object of the preposition *by*, etc., in passive sentences), O_{ak} = "causative direct agent" (i.e., any oblique constituent notationally superimposed with A in causative constructions), O_x = all other oblique constituents (these can be specified, if necessary, by grammatical case form: O_{ins} = noun in the instrumental case, etc.). In TD terminology, the semantic constituents, as stated previously, are called "participants" (equivalent to θ -roles in government and binding theory). Syntactic constituents are called "actants."

For comparison, we may first consider the change in diathesis produced by active causative *-(d)in*-suffixation. Sentences (4) and (5) are shown here as example (29):

- (29) Žirgas bėga.

A
S

'The horse runs.'

$(d)in \rightarrow$

K	A
S	O_d

 Žmogùs bėg(d)ina žirgą.
'The man makes the horse run.'

The notation of diathesis not only illustrates the semantic status of the individual actants, but also reflects the demotion of subject to direct object in the process of causativization mentioned in Section 2 above (i.e., $\frac{A}{S} \rightarrow \frac{A}{O_d}$).

If we now consider the change in diathesis induced by curative verb derivation, we see that *-din*-suffixation is a significantly different operation. In all four transformations considered below, the only observable change in the diathesis is in the semantics: wherever A occurs in the noncausative sentence, K occurs in the curative sentence. The syntactic (not to mention all other semantic) constituents remain the same. Compare the diatheses of sentences (22), (23), (28), and (27) (see Section 2), together with those of the corresponding noncausative sentences, cited here as examples (30), (31), (32), and (33):

- (30) Móteris siùva suknėlė.

'The woman is sewing a dress.'

A	P
S	O _d

-din →

K	P
S	O _d

Móteris siūdina suknėlė.

'The woman is having a dress sewn.'

- (31) Móteris siùva dūktėriai suknėlė.

'The woman is sewing her daughter a dress.'

A	Ad	P
S	O _i	O _d

-din →

K	Ad	P
S	O _i	O _d

Móteris siūdina dūktėriai suknėlė.

'The woman is having a dress sewn for her daughter.'

- (32) Móteries (yrà) siuvažà suknėlė.

'A dress is being sewn by the woman.'

A	P
O _a	S

din →

K	P
O _a	S

Móteries (yrà) siūdinama suknėlė.

'A dress is being "gotten sewn" by the woman.'

- (33) Suknėlė (yrà) siuvažà.

'A dress is being sewn.'

A	P
-	S

-din →

K	P
-	S

Suknėlė (yrà) siūdinama.

'A dress is being "gotten sewn".'

Thus we arrive at the same conclusion reached by Babby 1981 with respect to Turkish -D_{IR}-suffixed verbs (see Section 2): -*din*-suffixation in Lithuanian, unlike -(*d*)*in*-suffixation, is not a syntactic operation. It is a lexical operation, since its function is strictly semantic: the curative suffix -*din* serves to signal unambiguously that the θ -role "Agent" assigned by the VP is "Indirect" rather than "Direct."

We are left finally with the question: assuming the possible existence of some oblique syntactic constituent "*" not yet considered, is the following diathesis possible in Lithuanian at all (i.e., without recourse to a periphrastic causative construction)?¹³

K	A	P
S	*	Od

4. Direct Agents in Curative Constructions. Data collected from informants reveal that there are three basic ways of expressing Direct Agents in curative constructions. They do not represent regular grammatical means of introducing directly agentive NPs into the actantial structure of curative sentences, but rather constitute typically recurrent means of making oblique reference to Direct Agents. Some of the curative constructions below, while cited in dictionaries of contemporary standard Lithuanian (including the Lithuanian Academy Dictionary), are attested in rather old sources (sentence (39), for example, dates from 1653). Nevertheless, the grammar of these sentences is still that of contemporary Lithuanian: while one informant, for example, found some of the sentences “old-fashioned,” it became apparent that his assessment was based on the idiom rather than on the grammar per se (which, in fact, as a non-linguist, but as a speaker of contemporary standard Lithuanian, he felt competent to comment upon). As I alluded in Toops (In press), contextual and periphrastic means of expressing passive causative relations appear to be more common in the contemporary language than *-dĩn*-suffixation (I am aware of no statistical analysis that would corroborate this observation, however). Intuitively, this makes sense: if the valence of curative verbs is such that there is no syntactic position in the actantial structure of curative sentences to which the θ -role “Direct Agent” is configurationally assigned in the course of their generation, then periphrastic (and possibly also contextual—see below) causative constructions, which enable the regular syntactic exponency of both Direct and Indirect Agents, will presumably occur with greater frequency (cf. *Norėjo mán įdūoti siūti suknelę* [LKŽ 2:884] ‘She_K wanted to have me_A sew a dress.’ Also compare in this regard the nonoccurrence of “agentive passive” constructions in Classical Arabic and other languages in which only active constructions allow for the expression of both Agent and Patient.).

(a) Accusative-case object of the preposition *pàs*. As discussed in Toops (In press), Senn (1966:418) seemed to consider Lithuanian use of the preposition *pàs* (equivalent for the most part to the Russian and Polish preposition *u*, German *bei*, French *chez*) to mark direct agents a "Slavismus." In fact, if we consider the Russian contextual-causative (Toops 1987) construction signifying "The neighbor is having his son treated by a doctor," we see that the literal Lithuanian translation expresses the identical passive causative meaning:

- (34) Russ: Sosed lečit syna u vrača.
 Lith: Kaimýnas gýdo sūnų pàs gýdytoją.
 neighborNOM treats sonACC "chez" doctorACC
 'The neighbor is having his son treated by a doctor.'

As I stated in the Introduction above, noncausative (specifically, noncurative) forms of verbs denoting professional "service" activities can, as in a number of Slavic languages, be used with passive causative meaning. Unlike the modern Slavic languages, however, Lithuanian has, in addition, curative verb forms that **unambiguously** convey this same meaning ('to have [something] done'). Thus, passive causative situations, which can be rendered in Russian and other Slavic languages for the most part only by potentially ambiguous (i.e., with respect to causative vs. noncausative meaning) "contextual" means, can be expressed in Lithuanian both ways, cf. example (35):

- (35) Russ: On strižetsja u parikmaxera.
 Lith: Jis keĩpasi pàs kirpėją.
 heNOM shears-reflexive "chez" barberACC
 Lith: Jis kiĩpdinasi pàs kirpėją.
 heNOM shear-causes-reflexive "chez" barberACC
 'He's having his hair cut (literally: "having himself shorn") at the barber's/by the barber.'

Although I disagree with their analysis (cf. Toops 1987:608), it is worth noting that Löttsch, Fiedler, and Kostov (1976:87) have,

so to speak, elevated the status of the Russian preposition *u* (and, by extension, that of the Lithuanian preposition *pàs*, although Lithuanian is not among the languages included in their typology) to that of a grammatically regular marker of a syntactic constituent symbolized as *O_{ak}* in their notation of diatheses (see Section 3). The sentences in illustration (35) (above) all express, therefore, the following diathesis:

K	P	A
S	<i>O_{ak}</i>	

Similarly, the corresponding nonreflexive Russian and Lithuanian sentences represent the diathesis:

K	P	A
S	<i>O_d</i>	<i>O_{ak}</i>

Thus, at least within the theory of diatheses as elaborated by Löttsch, Fiedler, and Kostov 1976, the question I posed at the conclusion of Section 3 (see above) must be answered affirmatively: Lithuanian does have regular grammatical means (accusative NP governed by the preposition *pàs*) for introducing directly agentive NPs into the actantial structure of formally curative constructions. (Note that the horizontal notational ordering of the constituents—K|A|P or K|P|A—is irrelevant.)

There are at least two objections that can be raised against this analysis, however. First, in Lithuanian, as in a number of Slavic languages, the “service establishment,” rather than the “service provider” is frequently expressed in constructions with passive causative meaning:

- (36) Russ: On strižetsja v parikmaxerskoj.
 heNOM shears-reflexive in barbershopPRE
 Lith: Jis keĩpasi (kirĩpdinasi) kirpĩkloje.
 heNOM shears-reflexive (shear-causes-reflexive)
 barbershopLOC

'He's having his hair cut (literally: "having himself shorn") at the barbershop.'

Thus, *pàs* + accusative NP constructions in essence convey nothing more than the place where the action expressed by the verb is being performed. In my opinion, it is only because *pàs* + acc. constructions usually (but do not necessarily) express the attendant presence of someone professionally trained in the performance of the particular action involved that such prepositional phrases convey the notion of Direct Agent. Interpreting the object of the preposition *pàs* as Direct Agent is, therefore, simply a result of pragmatic assessment (cf. English "Every year I go to the dentist to have my teeth cleaned" and the unlikelihood of the proposition "Every year I go the dentist to have my teeth cleaned by my neighbor").

Second, even in Lithuanian constructions with formally curative verbs, the preposition *pàs* does not always mark an NP as being a Direct Agent, cf. (37):

- (37) Rašýdink grōmatą pàs brólį. (LKŽ 11:208)
 write-cause-imperative letterACC "chez" brotherACC
 'Have the letter written to your brother.'
 (not: *'Have the letter written by your brother.')

In the case of sentence (37) above, according to one informant, the preposition *peĩ* (see below) could "theoretically" be used in place of *pàs* for the purpose of rendering the notion "by (your) brother," but this informant considered the resulting sentence to be characteristic of "archaic" or "rural" speech.

(b) Accusative-case object of the preposition *peĩ*. According to one informant, the meaning expressed by the preposition *peĩ* in the curative constructions cited below is 'thanks to (the help of).' It is apparently a logical extension of this meaning that enables the object of the preposition to be interpreted as Direct Agent. Because of this meaning, on the other hand, it is not possible in Lithuanian to replace *pàs* with *peĩ* in sentence (35) above—*Jis kiĩp̃dinasi pàs kirp̃ėją*—since the resulting sentence would signify 'He is having his hair cut thanks to the barber' (*peĩ* is

etymologically related to English *for*, and the meaning ‘thanks to, because of’ is likewise expressed by the preposition in English contexts of the type “Were it not *for* the barber, he would not be getting his hair cut”—which is approximately what the Lithuanian sentence with *peĩ* would imply).¹⁴ Consider the following examples:

- (38) Daũg vālgių ĩrgi ragaĩšių peĩ tarnùs atnèšdino kũmams.
(Fraenkel 1929:128)
many coursesGEN and flatcakesGEN by servantsACC
bring_out-caused3P godparentsDAT
‘They had the servants bring out lots of courses/dishes
and flatcakes for the godparents’ (literally: ‘They had
many courses/dishes and flatcakes brought out to the
godparents by the servants.’)
- (39) Dĩrva... peĩ mĩkytojus pradĩrbdinai..., užsėdinai. (LKŽ
2:566)
fieldACC... by teachersACC till-caused2P..., sow-
caused2P
‘You had the field tilled and sown by the teachers.’

According to my informant, the prepositional phrase *peĩ mĩkytojus* ‘by the teachersACC’ in sentence (39) above can be replaced by *mĩkytojais* ‘teachersINS’ (cf. sentence (40) below), but *peĩ tarnùs* ‘by the servantsACC’ in sentence (38) cannot be replaced by *tarnaĩs* ‘servantsINS.’ My informant’s comments suggest that this discrepancy is due solely to the different (real) situations conveyed by the two sentences: the situation portrayed in sentence (39) is such that the likelihood of an animate (or rather, personal) noun in the instrumental case (*mĩkytojais*) being interpreted as a true instrument (implement) used in tilling and sowing is significantly smaller than the likelihood of servants in sentence (38) being viewed as instruments of carrying (that is, so to speak, as human beasts of burden; cf. example (40) below). With respect to examples (34) and (35) above, replacing *pàs*

kirpėją 'at the barber'sACC' with *kirpėju* 'barberINS' is impossible.

(c) Instrumental case without prepositional governance. Senn (1966:419) cites the following example without commentary (except to draw the German-speaking reader's attention to the fact that "double accusatives" [see note 11], characteristic of German causative *lassen*-constructions, do not occur in Lithuanian curative constructions):

- (40) [Jis] āvižas žąsimis lėšindin[a].
 heNOM oatsACC geeseINS peck-causes
 'He is letting the geese peck the oats.'
 ('He is having the oats pecked by the geese.')

For reasons given with respect to the previous sentences cited in this section, the instrumental case here is the only available means of conveying a Direct Agent. The preposition *pàs* is excluded, since geese do not have a place of business where service activities are performed (pecking oats, moreover, does not constitute a professional service activity). Replacing *žąsimis* with *peĩ žąsis* would similarly seem to personify the geese.

To conclude this section, the data presented above strongly suggest that there are no regular grammatical means of introducing Direct Agents into the actantial structure of Lithuanian curative constructions. The directly agentive status of NPs in the instrumental case or as objects of the prepositions *pàs* and *peĩ* in the accusative case is contextually implied and situationally determined, not grammatically assigned.

5. Conclusions. Lithuanian *-din*-suffixation is a lexical, not a syntactic operation. The suffix *-din* is a formal marker of the indirectly agentive status of the θ -role assigned by the VP to its subject NP. It signals no increase in the valence of the verb stem to which it is added; hence, curative verbs have the same syntactic arguments as the basic verbs from which they are derived. This is seen in the inability of established generative analyses (entailing Predicate Raising and underlying lexically

empty NPs) to account for the semantics and syntactic surface structure of curative constructions.

Intuitively, however, there is something to be said for the conceptualization of curatives as "passive causatives," in a literal sense of the term. If, within the framework of theories of valence, passivization is understood as a valence-decreasing operation (minus one actant) and causativization as a valence-increasing one (plus one actant), then it is understandable why basic transitive verbs (valence = 2) and their curative derivatives (valence = $2 - 1 + 1 = 2$) should be subcategorized for the same number of NP arguments. As I have stated elsewhere (Toops 1985:12), "the valence attributable to a given verb form or verbal syntagm is not in and of itself a criterion for the identification of a causative construction. The grammatical processes operating relative to the basic verb must also be taken into account. Thus, while both *Mary wrote John a letter* and *Mary was forced to write John a letter* are trivalent relations, the difference between them may be expressed as $3 = 3$ versus $3 = 3 + 1 - 1$, respectively."

Finally, the conceptualization of causativity as a lexical operation is not unusual. As Bowers (*The Theory of Grammatical Relations*. Ithaca, 1981: Cornell University Press, p. 11), cited in Babby (1981:29-30), states: "[A]ny separation between 'syntactic' processes and 'lexical' processes is quite arbitrary. It is a matter of fact that the central grammatical processes in natural languages are characteristically both syntactic and lexical. Some processes are 'more lexical' and others are 'more syntactic.' Languages vary widely, however, in the ways in which they can encode fundamental semantic relations into grammatical form, so that it is neither theoretically nor practically possible to maintain a strict separation between lexicon and syntax."

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ALPHABETICAL LIST OF SUBSCRIPT ABBREVIATIONS

A	= Direct Agent
ACC	= accusative case
DAT	= dative case
DO	= direct object
GEN	= genitive case
INS	= instrumental case
K	= Indirect Agent ("Kausator")
LOC	= locative case
NOM	= nominative case
PRE	= prepositional case
Sb	= subject
2P	= second person (singular)
3P	= third person (singular or plural)

NOTES

¹I am grateful to my Lithuanian-speaking informants, Tomas Venclova and Rimvydas Šilbajoris, for answering a number of questions I asked them about the data presented in this paper. It bears little resemblance to the paper "On the Syntax of Curative Constructions in Lithuanian" that I actually read at the University of Chicago's Fifth International Conference on the Non-Slavic Languages of the USSR.

²The Lithuanian Academy Dictionary (LKŽ) marks all such verbs "cur." and in the list of abbreviations that prefaces most of the volumes, the following entry appears: "cur. = verbum curativum, parūpinamasis veiksmazodis." See, for example, LKŽ 1:xix, 2:vii, 11:vii, and other volumes. Senn (1929:263ff.) originally called curative verbs "passive causatives" ("passive Kausativa"), and this term also exists in contemporary Lithuanian linguistics ("neveikiamieji priežastiniai veiksmazodžiai"—see Jakaitienė 1968:228, who also cites the corresponding neo-Latin term "verba causativa passiva"). Stang adopted the term "passive causative" in his own work (1942:187 and 1966:374), although eventually Senn (1966:255ff.) used the term "resultative causatives" ("resultative Kausativa") instead.

³For brief, but nonetheless incisive, overviews of the work of Soviet and East German scholars in the field of structural typology and the theory of diatheses, see Babby 1976, Comrie 1976a, and Xrakovskij, ed. 1981:3-4. For an introduction to the notation of diatheses used in this paper, the reader is referred to Löttsch, Fiedler, and Kostov 1976 and Xrakovskij 1981. Implicit in these works is a familiarity with Tesnière 1959, a refinement and elaboration of whose "structural syntax" are inherent in the theory of diatheses (cf. Xolodovič 1974:55 and Xrakovskij, ed. 1981:4, 39, 44, and *passim*). Lest one think that my application of more than one theoretical approach is *ad hoc*, I refer the reader to Babby 1981:1.

⁴The contextual expression of curative relations is not limited to verbs of foreign origin and may be the preferred means of expressing curative relations with verbs denoting professional service activities even when a *-din-* suffixed verb exists. Thus *gýdydinti* (Kurschat 1968:589) 'to have (someone) treated' is almost never used, the verb *gýdyti* 'to treat (medically)' (< *gýti* 'to heal [intransitive (as of a sore)], convalesce') being preferred. Thus, as indicated in Toops (In press), the proposition "The neighbor is having his son treated by a doctor" is normally expressed as *Kaimýnas gýdo sūnų pàs gýdytoją*, literally 'The neighbor is treating (his) son at a doctor's,' rather than *Kaimýnas gýdydina...*

⁵How the verbs *įdúoti* and *atidúoti* become functionally equivalent to a causative auxiliary is explained in Toops 1988 with reference to the Russian

etymon of *atidúoti*, viz. *otda(va)t'*. There I proposed that the meaning 'to have (something) done' is a "contextually inferable, logical extension" (1988:250) of the meaning 'to give,' specifically 'to give a thing to somebody (not necessarily expressed in surface structure) for the purpose of his doing something with it.' This proposition is supported by the existence of constraints on the range of nouns that can conceivably occur as a direct object in such periphrastic constructions. For example, "He had his hair cut" cannot be expressed periphrastically as **Jis ĭdavė pláukus nukiřpti* or **Jis ĭdavė savė nukiřpti*, presumably because one can neither "give" one's natural hair to another for the purpose of having it cut, nor can one "give" oneself to another for the purpose of being shorn. The verb *ĭdúoti* (but not *atidúoti*) is, like Russian *otda(va)t'*, nonetheless grammaticalized to the extent that it is possible to "give/hand over/consign" to someone something which, logically, does not yet exist; cf. sentence (3). Use of the verb *atidúoti* in place of *ĭdúoti* in sentence (3) would, however, signify that the dress (*suknėlė*) already exists and that the woman (*móteris*) wants to have it resewn (i.e., mended or altered).

⁶On the other hand, well-attested, native Lithuanian curative verbs can also be "misunderstood," at least in terms of the original verb form from which they have been derived. For example, one informant raised no objection to Senn's example (1966:419) *āvižas žąsimis lėšindinti* 'den Hafer von den Gänsen aufpicken lassen' ('to have the oats pecked by the geese'), while another informant objected to Senn's example on the grounds that *lėšindinti* does not signify 'to have (something) pecked,' but rather 'to have (someone/something [e.g., a bird]) fed (by letting it peck).' Interpreting *lėšindinti*, therefore, as a curative of *lėšinti/lėsdinti* (meaning, like *valgydinti*, 'to feed [i.e., to have (someone) eat]'), this informant considered the phrase nonsensical: 'to have the oats fed (with) geese.' The following entry in Kurschat 1970:1307, however, provides an adequate explanation for this discrepancy, i.e., the verb *lėšindinti* has both meanings: "*lesindinti*, -dinu, -dinau trans. 1. 'Geflügel oder Vögel füttern lassen.'—2. 'vom Geflügel aufpicken lassen'; *āvižas žąsimis* ~. NSB." (NSB = Niedermann, Max, Alfred Senn and Franz Brender. 1926-28. *Wörterbuch der litauischen Schriftsprache*. Heidelberg.) At the risk of confusing the reader (who may not yet have read Section 1 of this paper), I will attempt an explanation for this ambiguity. The basic verb is *lėsti* 'to peck.' From this verb Lithuanian derives *lėšinti* as well as the historically unjustified *lėsdinti*, both with the meaning 'to have/let (e.g., geese) peck (i.e., to feed [geese])' (cf. *valgydinti* 'to have/let [someone] eat [i.e., to feed (someone)]' < *válgyti* 'to eat'). The verb *lėšindinti* is therefore doubly causative (at least formally). Either it is interpreted as a curative form of the transitive (active causative) verbs *lėšinti/lėsdinti*, meaning 'to have (geese) fed' (cf. *gýdydinti* < *gýdyti* < *gýti* in note 4), or,

because *lėsdinti* has already been accepted as a synonym of *lėsinti* rather than a curative verb meaning 'to have (something) pecked,' *lėsdinti* functionally "fills the void" left by the failure of *lėsdinti* to acquire curative meaning (i.e., it is treated semantically as a curative derived directly from *lėsti*).

⁷The situation is not as bad as it may sound. As Jakaitienė 1970:175 points out, if the basic verb is intransitive, it does not matter which allomorph (-*in* or -*din*) is suffixed to its infinitive stem, since the resulting transitive derivative can only have the noncurative meaning 'to cause (someone/something) to do.' If, on the other hand, the basic verb is transitive (e.g., *válgyti* 'to eat'), semantic confusion still cannot arise provided (as I have already indicated here) that the suffix is stressed (cf. *valgydinti*). According to Jakaitienė 1968:222-23, the suffix is stressed in only 20% of -(d)*in*-derived verbs, but this figure includes transitive verbs derived from intransitives, which constitute the vast majority of "active causatives" (cf. Jakaitienė 1968:227).

⁸The term "Lexical Insertion" should not be taken to imply that the resulting causative verb is necessarily a "lexical causative" (see Shibatani 1976:2-3 and Toops 1985:17-18), although it may be. Lexical causatives express the semantic elements "CAUSE + ACTION" in the form of a single basic lexeme (e.g., English *kill* -CAUSE to die-); productive causatives express the semantic elements "CAUSE + ACTION" as either morphemically or lexically divisible constructs (e.g., Lithuanian *bėg-(D)IN-ti* ← -CAUSE *bėg-ti*).

⁹Note that it is precisely such optionally bivalent verbs in Russian and Lithuanian whose intransitivity is not marked by the "reflexive" morpheme -s'/-sja (in Russian) or -si- (in Lithuanian); cf. Toops 1987:608.

¹⁰Sentences of the type *Mótina valgydina vaikùs dúona* (motherNOM eat-causes childrenACC breadINS) 'Mother is feeding the children (with) bread,' seemingly derived by an increase in the actantial structure of *Vaikaĩ válgo dúonà* (childrenNOM eat breadACC), may lead one to conclude that -(d)*in*-suffixation also derives trivalent verbs from basic bivalent ones. However, as far as I have been able to determine, there is in Lithuanian no regular demotion of a noncausative active sentence's accusative direct object to instrumental NP in the process of causativization. I believe, rather, that in the case of *Mótina valgydina vaikùs dúona* we are witnessing a certain tendency towards semantic lexicalization on the part of suffixally derived verbs. This observation is supported by, among other things, the fact that *spáusdinti*, for example, formally a curative verb derived from *spáusti* 'to press, squeeze; to print' (cf. German *drücken* vs. *drucken*), does not signify 'to have (something) pressed/printed,' but rather only 'to print' (see Kruopas et al. 1972:729). Although dictionaries still list 'to print' as a meaning of

spáusti (ibid.), one of my informants rejected the sentence *Jis atidavė knygą spáusti* (cf. Kurschat 1968:175) 'He had a book printed,' accepting, as he did, only the variant *Jis atidavė knygą spáusdinti*.

¹¹Double-accusative constructions, i.e., causative constructions in which both the embedded subject and the embedded direct object occur, as in the Germanic languages, as accusative-case direct objects is possible in Lithuanian only if causativity is expressed analytically (e.g., by means of periphrastic constructions of the type *veřsti* + infinitive).

¹²Geniušienė uses here the term "Ausgangsverb," which is ordinarily rendered in English as "basic verb." I have translated the term as "initially chosen verb," since Geniušienė obviously does not mean to imply that the verb *sugadinaũ* (derived historically from *sugėsti* through *-in*-suffixation) is a "basic" verb in the commonly accepted sense of the term. She uses the term "Ausgangsverb" literally to refer to any (basic or derived) verb form one may choose as a point of departure (Ausgang) for identifying (the semantics of) further derivational processes.

¹³The theory of diatheses recognizes that not all conceivable diatheses actually occur in any given language. Thus, the diathesis

Ad	P
S	Od

which occurs naturally in English (cf. "John was given a medal"), does not occur at all in Russian (which in this particular instance responds with the diathesis

Ad	P
Q _i	S

"To John was given a medal.")

¹⁴Although Fraenkel (1929:128) classifies the use of *peĩ* in curative sentences together with its now archaic use in noncurative passive constructions (attributed by some, e.g., Senn [1976:376], to influence by Polish use of the preposition *przez*), it is worth repeating here Fraenkel's comments on the Lithuanian use of the preposition *peĩ*: 'Just as Lithuanian uses *peĩ*, so Polish uses *przez*.... Nevertheless it is a mistake to see nothing more than a Polonicism in the Lithuanian usage under discussion here; nor are we dealing with an imitation of German *durch*..., but rather with an independent development whose great expansion has at most been [only] aided by foreign models.'

THE GEOGRAPHY OF GEORGIAN Q'E

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In this paper I will discuss the geographical and semantic range of the Georgian clitic *q'e*. While it has been known for some time that this particle serves as a number agreement marker for plural objects in some dialects, little has been done to identify the factors which condition its use. I will present evidence that the NPs controlling agreement in *q'e* are almost always animate and presupposed, and attempt to relate this to the syntactic changes that have been underway in Georgian over the past millenium.

1. **Agreement morphology.** I will begin with a brief discussion of Kartvelian agreement morphology. The Kartvelian verb can agree with two — in some dialects three — arguments. The two sets of person agreement affixes used in early Old Georgian are shown in {1a}. The correlation between case, person agreement set and semantic role is given in {1b}.¹

{1a} Set V (grammatical subject)			Set M (grammatical object)	
1sg	v-	-Ø	1excl	m-
1pl	v-	-t	1incl	gw-
2sg	x/h/s/Ø-	-Ø	2	g-
2pl	x/h/s/Ø-	-t		
3sg	-s/a/o/n		3 DAT	x/h/s/Ø-
3pl		-n/es/en/ed	3 NOM	Ø-

{1b} ACTIVE STEM			PASSIVE STEM		
	AGENT	PATIENT	REC/EXP	THEME	REC/EXP
Series I					
agr.	V	M	M	V	M
case	NOM	DAT	DAT	NOM	DAT
Series II					
agr.	V	M	M	V	M
case	ERG	NOM	DAT	NOM	DAT
Series III					
agr.	M	V	—	V	M
case	DAT	NOM	[+ postp]	NOM	DAT

Note that the feature of (formal) number is marked by Set V affixes but not, originally, by Set M. By the 10th century, however, the inclusive/exclusive distinction originally coded by Set M *gw*-versus *m*- was no longer productive, and these same prefixes came to mark a plural/singular 1st person opposition [Šanije 1982:74; Met'reveli 1978]. Not shown in {1} is the Old

Georgian suffix *-(e)n-* which cross-referenced plural NOM case arguments for certain classes of verb stems. The verb in the following sentence employs one marker from each of the three sets: Set V, Set M and the pluralizer *en*:

- {2} arca mama-man tkwen-man mo-**g-i-t'ev-n-e-s** tkwen
 šecodebul-n-i tkwen-n-i
 [nor father-ERG your(pl) forgive-IIa-3/2pl/pl you(pl)-DAT sin-
 PL-NOM your(pl)]
 "Nor will your father forgive you your sins." [Matthew 6:15]

Note that the verb in {2} agrees in number with the NOM case direct object ("sins") but not the DAT case indirect object ("you(pl)"). With the exception of the 1st person Set M prefixes mentioned earlier, Old Georgian agreement for number was closely correlated with case: ERG and NOM case NPs could control number agreement (NA), while DAT NPs could not [Čikobava 1968:162-227]. This constraint applied even to so-called inverse constructions (e.g. active verbs in series III) where the agent NP is assigned DAT case and controls Set M agreement, while the patient/theme NP is assigned NOM case and controls Set V agreement. Only the latter could control NA in Old Georgian. This is illustrated in {3}, in which series I and series III forms of active verbs are juxtaposed. In the second clause in {3} [cited in Čikobava 1968:171] the DAT NP denoting the agent ("those who"), although plural and animate, is not cross-referenced for number by the verb; on the other hand, the NOM patient NP ("hands") is. (In this example, NA with the NOM NP is marked **twice**: through Set V 3pl agreement, and also through *en* agreement. Compare this to the agreement pattern in the first clause in {3}, where the NOM agent controls NA and the DAT patient does not.

- {3} romel-n-i-me Ø-i-cem-d-es mk'erd-ta mat-ta,
 da romel-**ta-me** aḡ-Ø-e-p'q'r-**n-es** qel-n-i mat-n-i zec-ad
 [which-PL-NOM hit-Ia-3pl/3 breast-DATPL their-DATPL
 and which raise-IIIa-3pl/3/pl hand-NOM-PL their-NOM-PL
 heaven-ADV]
 "...those who<NOM> beat their breasts, and those who<DAT>
 had raised their hands<NOM> heavenward." [c'art'q'.
 ierus. 27:28]

Although these agreement patterns remained normative for literary Georgian through the 18th century, verb forms indicative of the norms operative in the various dialects of the spoken language are attested in texts as early as the 11th century. Z. Sarjvelaje [1981, 1984:566-8] has documented some of these early attempts to code the plurality of prominent DAT arguments in the verb. Consider the following examples:

- {4} amat mo-Ø-u-g-i-an didebuleba-y sul-isa-y [ms Jer-73
(XI c.) 127r]
[they-DAT win-IIIa-3/3pl majesty-NOM soul-GEN-NOM]
"They have won majesty of soul." <cp early Old Georgian mo-
Ø-u-g-i-e-s>
- {5} g-i-txrob-d-i-t aramed rametu tkwen tana v-i-q'av-Ø [ms
Jer-32: 137r,24]
[tell-Ia-1/2pl rather that you(pl)-DAT with be-IIp-1]
"I was telling you rather that I was with you." <early OG
g-i-txrob-d-i>
- {6} še-Ø-e-šin-a-t priad [I Kings 7:7]
[be-afraid-IIp-3/3pl greatly]
"They were very much afraid." <early OG še-Ø-e-šin-a>

Two distinct strategies are represented here. Example {4} comes from a document [*psevdmak'ari megwip'telis sc'avlani* "The teachings of Pseudo-Makarias the Egyptian"] which seems to be of southwest Georgian origin [Sarjvelaje 1984:566]. Agreement with the 3pl DAT "real subject" is coded by a 3rd plural Set V suffix (-an) in conjunction with the expected Set M 3rd person prefix (Ø- prevocally). In examples {5} and {6} the Set V suffix associated with 1st and 2nd person plurality (-t) is used to mark plural NA with a 2nd person addressee {5} and a 3rd person experiencer {6}. This second strategy is now normative in modern literary Georgian; the first strategy is still used by speakers of several western Georgian dialects as well as the Kartvelian languages Laz, Mingrelian and Svan [Jižišvili 1958, K'iziria 1974, Čikobava 1936:94-102].

2. Use of q'e. Less than a century after the sentences in {4-6} were written, the particle q'e was being used — sporadically — in written Georgian for a similar purpose. One of the earliest documents where q'e is attested is a charter granted by King David

the Builder to the monastery at Shio-Mghvime, dated 1125 [Jijiguri 1984:57]:

- {7} twit adr-it-gan mamaoba-sa Ø-e-c'er-a-**q'e** saebisk'op'oso-d
[even-INS early-INS-from father(coll.)-DAT write-IIIa-3/3/pl
episcopacy-ADV]

"From the very beginning the fathers had written to the episcopacy."

Sarjvelaje [1984:562-7] gives several other examples from 12th century documents:

- {8} esodeni šiš-i da-g-i-p'q'rob-s-**q'e** tkwen [ms Jer-22:25r,20b]
[so-much fear-NOM seize-Ia-3/2/pl you(pl)-DAT]

"So much fear will seize you."

- {9} ray-mca ara Ø-e-kmn-a-**q'e** [ms A-52:38r,12]
[what-NOM not do-IIIa-3/3/pl]

"which they would not have done"

- {10} egret amat-ca mšwidoba-sa mi-s-cem-s brjol-isa-twis,
romel-i mat-da mimart Ø-a-kwn-d-a-**q'e** [ms A-52:146r,10-11]
[thus them-DAT-also peace-DAT give-Ia-3/3 struggle-GEN-for
which-NOM them-ADV toward have-IIp-3/3/pl]

"Thus he will grant them peace instead of the contention which he had toward them."

The definition of *q'e* most often given by Kartvelologists is that it codes the plurality of "grammatical objects," i.e., arguments cross-referenced by Set M person markers, which can be assigned either DAT or — in the case of transitive verbs in the aorist/optative series — NOM case.² In sentences {7} and {9} the DAT agent NP of a transitive verb which has undergone inversion is coded for plurality in the verb. Note that **notional** rather than formal plurality is marked in {7}, where *q'e* cross-references the collective *mamaoba* "group of fathers [priests]." In {8} the 2pl direct object controls NA in *q'e*. Occasionally one comes across instances where the motivation underlying the appearance of the clitic is difficult to establish. Sarjvelaje [1984:568] views the *q'e* in {10} as "functionless." It may be that the plurality of the oblique argument *matda mimart* "toward them" is responsible for the occurrence of *q'e*. (Another possibility is that it marks habitual Aktionsart, as in some of the modern dialects which we will discuss further on.) The early 13th century epic poem "The knight in the panther's skin" by Šota Rustaveli contains two tokens of *q'e*, both, interestingly

enough, cliticized to the noun preceding the verb rather than to the verb itself.

- {11} mi-Ø-xoc-d-es da mi-i-srod-es, mindor-s sisxl-ita mi-Ø-a-sxmid-es;
 ra isar-i da-Ø-e-lev-i-s, mona-n-i-q'e mi-Ø-a-rtmid-es. [75:2,3]
 [slaughter-Ia-3pl/3 and shoot-Ia-3pl field-DAT blood-INS
 smear-Ia-3pl/3
 what arrow-NOM exhaust-1p-3/3 servant-PL-NOM-pl proffer-
 Ia-3pl/3]
 "They slew and shot, drenching the field with blood;
 Whenever their arrows ran out, servants brought them more."

In this excerpt, *q'e* marks the plurality of the recipients of the fresh arrows (Rostevan and Avtandil), who are coded by zero anaphors throughout. (An overt NP denoting them would be assigned DAT case by the verb *miartmides*).

Before we begin looking at the data from modern Georgian dialects, I shall lay out some initial observations concerning *q'e*: [a] For the most part — excluding cases like {10} — this clitic codes the notional plurality of grammatical objects, i.e. arguments controlling Set M (object) agreement in the verb.

[b] In the majority of Old Georgian attestations — and all modern ones — *q'e* is attached to the end of the verb. Instances like {11} indicate that at one time this morpheme was more particle-like and less suffix-like than it is now.

[c] Once the old inclusive/exclusive distinction marked by the Set M prefixes *gw-* and *m-* was lost, a coding asymmetry resulted: for arguments controlling Set M person agreement, number agreement was obligatory for 1st person, but not possible for 2nd or 3rd person NPs. When, in literary Georgian, the semantic range of the Set V suffix *-t* was extended to include the coding of plural grammatical objects, it was (and still is) employed in complementary distribution to the prefix *gw-*, giving the following "balanced" Set M paradigm:

{12}	<u>Set M affixes (Modern Standard Georgian)</u>	
	1sg: m-	1pl: gw-
	2sg: g-	2pl: g- -t
	3sg: h/Ø-	3pl: h/Ø- -t

Usage of *q'e* shows the same complementarity: it is never used to code the plurality of a 1st person grammatical object.

[d] Unlike person agreement, number agreement in *q'e* is not obligatory when a plural argument in the appropriate formal relation to the verb is present. For example, in "The knight in the panther's skin" only two of the hundreds of plural DAT arguments are correlated with *q'e*. The same is true for Set M *-t* in the standard language and in those dialects where it is used: NA with 2nd and 3rd person arguments controlling Set M person agreement is not obligatory,³ while agreement with 1st plural arguments in *gw-* — and for that matter, agreement in *-t* with 1st and 2nd plural NPs in the Set V paradigm — is.

3. *q'e* in the modern Georgian dialects. With the above as background, let's turn to some data from the modern Georgian dialects. The accompanying map shows the location of the principle dialects and subdialects, as described in Giginešvili, Topuria, and K'avtaraje 1961 [henceforth abbreviated GTK]. These can be divided into five main dialect groups:

- {13} I. **Northeast dialects**
 Moxevian
 Mtiuletian-Gudamaq'rian
 Xevsurian
 Pshavian
 Tushetian

- II. **Eastern dialects**
 K'axetian
 Ingiloan
 Fereidanian
 Tianetian

- III. **Central dialects**
 Kartlian
 Javaxian
 Mesxian

- IV. **Southwest dialects**
 Gurian
 Ach'arian
 Imerxevian

- V. **Northwest dialects**
 Imeretian
 Lechxumian
 Rach'an

As a Set M plural marker *q'e* is not found in the conservative northeast dialects. We will begin with the eastern dialects.

3.1. Ingiloan. Ingiloan, a Georgian dialect spoken on the Azerbaidjani side of the Alazani River, makes extensive use of *q'e*; some examples are given in {16}:

{14} insn-eb da-g-i-k'lav-q' [Imnaišvili 1966:187]

[man=PL-NOM kill-IIIa-3/2/pl]

"You(pl) have killed the men." <NA with 2pl DAT agent of active verb>

{15} danarč'en bič'-eb-s da dad-eb-s Ø-u-k'eteb-en plav-s, čey-s,

Ø-a-č'mev-en-q'e, Ø-a-levineb-en-q'e. [GTK:244]

[remaining boy-PL-DAT and bridesmaid-PL-DAT make-Ia-3pl/3 pilaf-DAT tea-DAT feed-Ia-3pl/3/pl cause-to-drink-Ia-3pl/3/pl]

"For the remaining boys and bridesmaids they prepare pilaf and tea, feed them and give them something to drink." <NA with 3pl DAT recipients>

The second example is particularly interesting, in that it gives some idea of how *q'e* is used in connected speech. The first verb in the series of three — *uk'eteben* — does not agree in number with its indirect object, while the second and third verbs do. There is considerable evidence that discourse-prominence factors play an important part in determining the occurrence of certain types of NA in Georgian, including the literary language. In this instance, the newly-introduced topic "boys and bridesmaids" does not control NA in *q'e* until it becomes presupposed information, as indicated by the use of null anaphora.

3.2 Fereidanian. The isolated eastern dialect of Fereidan, spoken in Iran by the descendants of a group of Georgians captured and resettled in the 17th century, is noted for its frequent use of *q'e*. As in Ingiloan, discourse topicality is an important factor:

{16} tko ro: "namai-a gamo-<v>-a-ğij-e-q'e-o, minac em sxo otağebč'i c'van-an-o"

— ro keniz-eb-i i-q'v-nen. ša-vid-a da gamo-Ø-a-ğij-a-q'e.

ema-t h-k'itx-a-q'e ro: "em dedak'ac-tan min ari ro c'ev-s-o?"

emeeb-ma Ø-u-txr-es ro: "es dedak'ac-i ari erti tağer-is dedak'ac-i-o,

da ans-i-c tavis bič'-i-a-o...." ema-s balki go-Ø-u-xard-a,

ama-Ø-i-ğ-o rakteni pul-i, čo-Ø-u-q'ar-a-q'e emeeb-sa:

“ša-d-i-t, gamo-Ø-a-ğij-e-t-o.” em keniz-eb-ma-c, pul-i k'i go-
 Ø-u-xard-a-q'e,
 amma Ø-e-šinod-a-q'e ro: “em dros min ari ese-o, ro čamo-sul-
 a-o?!”

[say-IIa-3 that good-is wake-IIa-1/3/pl -QT who-NOM the other
 rooms-in lie-3plQT
 that maid-PL-NOM be-IIp-3pl enter-IIp-3 and wake-IIa-3/3/pl
 them-DAT ask-IIa-3/3/pl that this woman-with who is that lie-
 Ip-3-QT
 they-ERG tell-IIa-3pl/3 that this woman-NOM is one merchant-
 GEN woman-QT
 and this-NOM-also her boy-NOM-is-QT this-DAT very-much
 rejoice-IIp-3/3
 take-out-IIa-3/3 so-much money-NOM throw-IIa-3/3/pl them-
 DAT
 enter-IIp-2pl wake-IIa-2pl/3-QT the maids-ERG money indeed
 rejoice-IIp-3/3/pl
 but fear-IIp-3/3/pl that this time-DAT who-NOM is this-QT that
 come-IIIp-3-QT]

He said: “It’s a good idea to wake up the people who are sleeping in the other rooms” — where the maids were. He went in and woke them up. He asked them: “Who is lying with this woman?” They told him: “This woman is the wife of a merchant, and that is her son.” He was happy (to hear this) and took out a large sum of money and tossed it to them: “Go in and wake them up.” The maids were indeed very happy about the money, but still frightened: “Who is this person who has come to us at this hour?” [GTK:266]

The interesting thing to note in this passage is the use of *q'e* to mark NA with a new topic, even before it is first explicitly mentioned. This use of the particle seems to be more frequent than the more locally-determined thematicity conditioning exemplified in {15}. Also, note that the speaker did not use *q'e* to mark NA with the plural object of *gamoagijeto* ‘wake up <the woman and the boy>’ in the 7th line, evidently preferring to reserve Set M NA for the primary topic “maids.” Now consider the short Fereidianian passage given in {17}:

{17} zog dže-sa sakme ver ča-i-gd-i-s xel-či, sadil-ze šamo-id-
 i-s-q'e

da Ø-u-txr-i-s-q'e q'ein-is q'or-sa: dže-s sakme ar ča-m-i-ward-a-o.

zog dže-s ro e-mušavn-i-s-q'e sağamo-s em q'ein-is q'or-ma h-k'itx-i-s-q'e:

dže-s sad i-q'av-o, mis-tana i-mušavob-d-i-vo?

[some day-DAT affair-NOM cannot grasp-IIa-3/3 hand-in dinner-to enter-IIp-3-q'e

and tell-IIa-3/3-q'e king-GEN girl-DAT day-DAT affair-NOM not fall-IIp-3/1-QT

some day-DAT that work-IIIa-3-q'e eve-DAT the king-GEN girl-ERG ask-IIa-3/3q'e

day-DAT where be-IIp-2-QT who-GEN-with work-Ia-2-QT]

"On those days when he can't find something to do, he comes to dinner and tells the king's daughter: I didn't find a job today. On those days when he had been working, in the evening the king's daughter asks him: Where were you, with whom were you working?" [GTK:260]

It is clear from the context that no plural grammatical object is being referred to — in fact, some of the verbs are monopersonal. Examination of Fereidianian texts indicates these "anomalous" occurrences of *q'e* are most often with verbs in the permansive/habitual aspect, as in the above example.⁴ This use of the particle is by no means limited to Fereidianian. Čikobava [1937:54-5] reports that an enclitic particle *k'e* — which he claims is cognate with *q'e* — is frequently used in conjunction with the past habitual in the northeast dialect of Mtiuleti.⁵

3.3. Kaxetian. In most of the K'axetian dialect region, *-t* is the Set M plural NA affix of choice, and it used pretty much the same way *q'e* is in Ingiloan. In eastern K'axeti — in Q'vareli and Gurjaani Raions — *q'e* is used, as well as *-t*, which is said to be supplanting it [Čikobava 1968:277].

3.4. Imeretian. Moving westward into Imereti, we observe that of the two major subdialects spoken in this region, Upper Imeretian prefers *-t* and Lower Imeretian *q'e* for NA with prominent grammatical objects, though both morphemes are attested in both dialects. In many of the Imeretian texts that I have read, it appears that *-t* is preferred for grammatical objects that have "real subject" status, i.e., the DAT case-marked agents of active verbs that have undergone inversion, and the experiencer arguments of *verba sentiendi*. For other topical arguments

controlling Set M person agreement, NA in *q'e* is generally used. Compare the use of the two plural NA markers in this Upper Imeretian example:

- [18] k'itx-es rac Ø-u-ndod-a-t; Ø-u-txr-a-q'e [GTK:458]
 [ask-IIa-3pl/3 what-NOM want-IIp-3/3pl tell-IIa-3/3/pl]
 "They asked what they wanted; he said to them..."

For the most part, NA in Imeretian is as in Ingiloan and K'axetian. In western Imereti, most notably in C'uluk'ije Raion, a surprising extension of the usage range of *q'en* (a variant form of *q'e*) is observed (Jijiguri [1940:164, 1954:152]; K'ublašvili [1985:140-2]):

- [19] ame-Ø-i-q'van-o-c'-q'en kal-eb-ma q'vel-i-o [Jijiguri
 1940:164]
 [bring-up-IIa-3/3/pl woman-PL-ERG cheese-NOM-QT]
 "The women should bring up the cheese." <NA with 3pl ERG agent>

- [20] še-me-xvec'eb-od-e-c'-q'en [K'ublašvili 1985:141]
 [plead-Ip-3/1/pl]
 "They would be pleading with me." <NA with 3pl NOM agent>

- [21] ver jlebulob-s-k'en amden sakme-s ertad [K'ublašvili
 1985:141]
 [cannot manage-Ia-3/3/pl this-many matter-DAT together]
 "They cannot manage to do so many things at the same time."
 <NA with 3pl NOM agent>

It may be the case that the range of *q'en/k'en* has been expanded by analogy with the range of the 3pl Set V agreement marker *-en*. In the southwest dialects, *-en* is used to code NA with DAT-case subjects which control Set M agreement; compare {4} above, which is believed to have originated in southwest Georgia. The suffix, therefore, codes plural real subjects, regardless of their case. In C'uluk'idze Raion it appears that *q'en/k'en* has taken on similar characteristics.

3.5. Lechxumian and Rach'an. The semantic range of *q'e* in Lechxumian and Rach'an is about the same as in Ingiloan and (most of) Imeretian.⁶ NA in *q'e* is found here in essentially the same contexts as in the other northwest dialects. The following passage was recorded in the Rach'an village Ch'iori:

[22] čagele-et Ø-q'av-d-a-q'e bat'on-i.
 katam-i-c rom da-Ø-e-k'l-a-s-q'e,
 naxevar-i bat'on-i-tvin unda mi-Ø-e-c-e-s-q'e
 mara ertxel mo-Ø-u-vid-a-q'e iağliši:
 bat'on-eb-i i-txov-d-en met'-s;
 met'i ama-t ar Ø-kon-d-a-q'e.
 mo-vid-en, a-Ø-u-t'q'd-en-q'e da c'a-i-q'van-es-q'e
 tavisi ak'van-eb-ita da tavisi bağv-eb-it kal-eb-i-ca da k'ac-eb-
 i-c.

[Chagele-DATPL have-IIp-3/3/pl lord-NOM
 chicken-NOM that kill-IIIa-3/3/pl
 half-NOM lord-GEN-for must give-IIIa-3/3/pl
 but once come-IIp-3/3/pl mishap-NOM
 lord-PL-NOM demand-Ia-3pl/3 more-DAT
 more-NOM they-DAT not have-IIp-3/3/pl
 come-IIp-3pl attack-IIp-3pl/3/pl and take-IIa-3pl/3/pl
 their cradle-PL-INS and their child-PL-INS woman-PL-NOM
 and man-PL-NOM-too] [GTK:524]

"The Chageles had a (feudal) overlord. Whenever they would kill a chicken, they had to give half to the overlord. One day misfortune came upon them: The overlords demanded more, but they did not have more (to give). So they [i.e. the overlords] came, attacked them and carried them off, women and men, with their cradles and their children."

3.6. Factors relevant to use of q'e. On the basis of the Georgian dialectological materials available to me, the following general observations can be made concerning the morpheme *q'e*:

[1] It almost invariably cross-references an NP with an animate denotatum. Only one of the over 200 occurrences of *q'e* in my sample coded NA with an inanimate. This is to be expected, of course, given the tendency observed in most of the Georgian-speaking area for all NA processes to be sensitive to animacy.

[2] Animacy is not the whole story: topicality is also an important criterion for number agreement. For example, in the corpus I examined, in 86 of 121 instances of *q'e* NA with a direct or indirect object not serving as a real subject, the latter was represented by a null anaphor.

4. Parallels in Georgian morphosyntax. In the course of its recorded history Georgian has undergone significant changes.

Among the more extensive of these changes has been the realignment of the number agreement component of the syntax. In every modern dialect, save the most conservative dialects of northeast Georgia, NA, however it might be marked, is sensitive to the animacy, and in some cases topicality, of the argument concerned. In Old Georgian, formal number was the primary determinant of NA: if the NP in question was marked with the appropriate plural suffix [NOM -n-i, ERG -t(a)], NA generally occurred; otherwise 3sg agreement was marked, even if the argument was notionally plural, or marked with the pluralizer -eb- [Šanije 1982:182-3; Harris 1985:210-3; for exceptions see Sarjvelaje 1984:543-64]. In modern standard Georgian, -eb- is the unmarked plural suffix, and NA with plural 3rd person NPs controlling Set V person agreement is largely dependent on animacy (Čikobava 1968:272-3; K'vač'aje 1977:99-104).⁷

{23} mucela-s k'bil-eb-ma k'ac'k'ac'-i da-0-u-c'q'-o [Vazha-Pshavela]

[M.-DAT tooth-PL-ERG chatter-NOM begin-Ila-3sg/3]

"Mucela's teeth began chattering."

{24} jarisk'ac-eb-sHi ga-i-sm-i-s xm-eb-i [Čikobava 1968:272]

[soldier-PL-in is-heard-Ip-3sg voice-PL-NOM]

"Voices are heard from among the soldiers."

Čikobava comments that "*ga-i-sm-i-an xm-eb-i* [is-heard-Ip-3pl voice-PL-NOM] is unacceptable in modern Georgian, although in Old Georgian *i-sm-i-an qma-n-i* [is-heard-Ip-3pl voice-PL-NOM] would have been normal" [1968:272]. Likewise, in the Mountain Rach'an village Glola, the one place outside of the northeast dialect area where NA in -(e)n- with NOM direct objects is still found, animacy appears to be a necessary condition for this agreement to occur.⁸ Furthermore, there is evidence that in at least some dialects, notably Lower Imeretian [K'iziria 1974:81], even NA with animate subjects is to some degree dependent on topicality. Consider the following excerpt from a Lower Imeretian folk tale [in GTK:474] about three brothers — two smart and one foolish — seeking their fortunes. The foolish brother is spending the night in a grain hopper.

{25} dila-ze gare-dan pxak'a-pxuk'-it mo-vid-a tagv-eb-i
da ga-Ø-a-ps-en xvimir-i pul-it.

game-Ø-e-k'id-a sulel-i tagv-eb-s da da-Ø-a-t'ueb-i-a pul-eb-i.
 ga-Ø-a-ps-o didi sapule pul-it da c'e-vid-a sax-ši.
 č'k'viani jman-eb-i sax-ši da-Ø-xt-a.
 veraper-i ver Ø-e-šon-a-t da ke da-brunbul-iq'v-en calieri.

[morning-at outside-from scratching-INS come-IIp-3sg mouse-PL-NOM

and fill-IIa-3pl /3 hopper-NOM money-INS

chase-IIp-3/3 foolish-NOM mouse-PL-DAT and leave-CAUS-IIa-3/3 money-PL-NOM

fill-IIa-3/3 big money-bag-NOM money-INS and go-IIp-3 home-in

smart brother-PL-NOM home-in meet-IIp-3sg /3

nothing-NOM cannot find-IIIa-3/3pl and indeed return-IIIp-3pl empty]

"In the morning the mice came from outside with a scratching sound and filled the hopper with money. The foolish brother chased away the mice and made them leave the money behind. He filled a large bag with the money and went home. The smart brothers met him at home. They had not found anything, and had returned empty-handed."

Two formally plural animate NPs appear in this passage: *tagv-eb-i* 'mice' and *jman-eb-i* 'brothers.' Although both serve as both grammatical and "real" subjects of their respective verbs at their first appearance, both control 3rd singular Set V agreement — or perhaps it would be more accurate to say: 3rd person Set V, not specified for plurality. Verbs in the following clauses, however, cross-reference these same arguments with specifically 3pl agreement markers.

Some aspects of the use of the NA marker *-t* with arguments controlling Set M agreement also remind us of the discourse-related phenomena mentioned above. Consider the following excerpt from a recently published short story:

{26} me megobar-i gvt-is c'q'alob-it bevr-i m-q'av-s,
 [I-DAT friend-NOM god-GEN grace-INS many-NOM have-Ip-3/3

tanac iset-eb-i ar-ian, st'umroba tu gan-i-zrax-es,
 besides that-PL-NOM be-Ip-3pl guesthood-NOM if intend-IIp-3
 veranairi amind-i ver da-Ø-a-brk'oleb-t
 no-kind weather-NOM cannot hinder-Ia-3/3pl]

"By the grace of God I have many friends; furthermore, they are the sort of people that, if paying a visit is on their minds, no kind of weather can hinder them." [J. Karčxaje *Mnatobi* 1986, #1:70]

My consultants in Tbilisi told me that the topicality and animacy of the patient ("my friends") as opposed to the rhematicity and inanimacy of the agent ("weather") contributed to the occurrence of NA in *-t* with the former.⁹ If the patient NP is less highly presupposed, plural NA is less acceptable:

{27} veranairi amind-i ver da-Ø-a-brk'ol-eb-s/?-t st'umr-eb-s
[no-kind weather-NOM cannot hinder-Ia-3/3 guest-PL-DAT]
"No kind of weather can hinder the guests."

5. Conclusion. In evaluating number agreement in the various modern Georgian dialects, we can list several hierarchies which are relevant to the process:

- {28} a. discourse-functional: topical > non-topical
 b. referential: animate > inanimate
 c. formal: 1st/2nd > Ø > pronoun > .other NPs
 d. deep case: agent > experiencer/benefactive > theme > patient

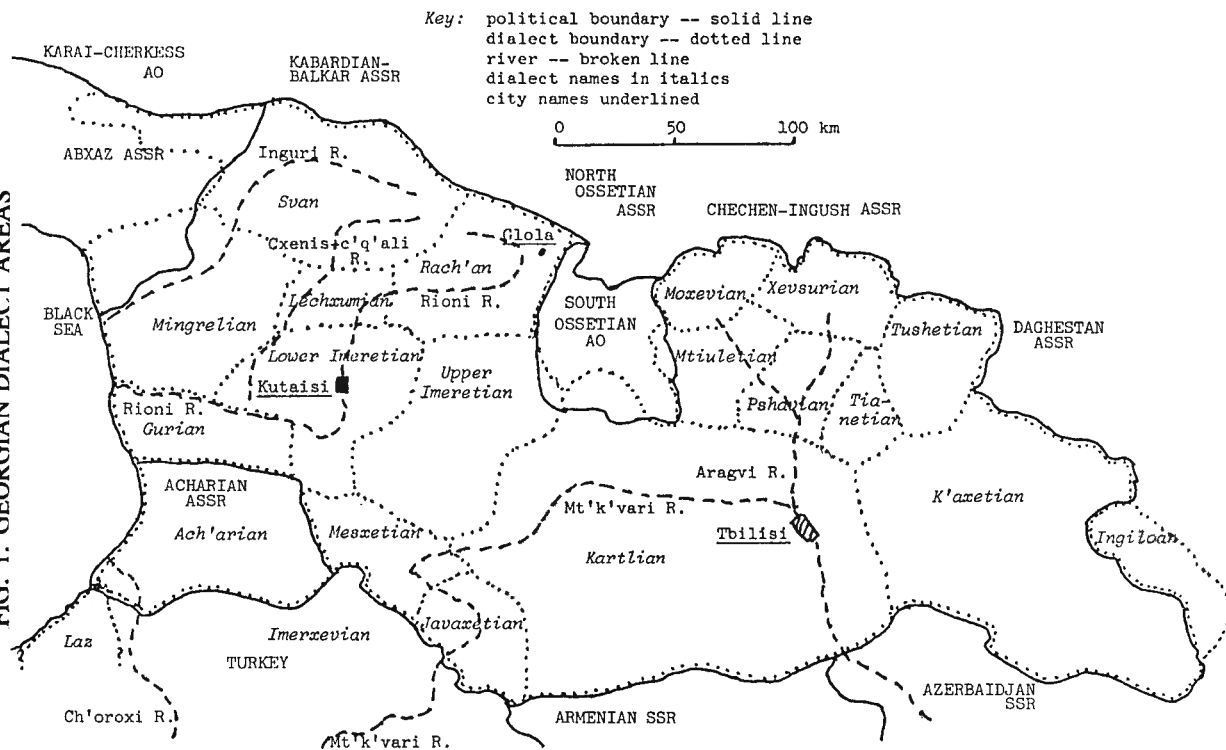
To some extent these hierarchies overlap with each other, of course. Speech-act participants are almost always animate, and both the topicality and formal NP-type hierarchies reflect degree of presupposedness [Silverstein 1976,1981]. The Georgian dialects differ in which specific hierarchies from the list are of importance, and where they draw the line between forms that do and do not have the potential of controlling number agreement. For Set V number agreement, in most instances, animacy is the major criterion, though as we saw, topicality can play a role in Imeretian. For Set M agreement, the number of relevant factors is greater in most dialects, and the cut-off points are less clear cut. In the case of the topicality criterion, for example, there is variation — perhaps only idiolectal — concerning the status of newly-introduced arguments that are destined for a prominent role in the discourse.

Secondly, one can describe the morphosyntactic systems of individual languages or dialects in terms of the manner of

distribution of what one might call "syntactic privileges" within the clause: which argument classes receive these privileges, and how asymmetric the distribution is. In early Old Georgian, the privilege of controlling number agreement was distributed according to formal criteria: the case assigned an NP [ERG or NOM, not DAT] and the set of person agreement markers it controlled [Set V, not Set M]. Other syntactic privileges, such as ability to bind reflexive and reciprocal anaphors and likelihood of participating in cross-clausal reference maintenance, were determined according to semantic criteria, in particular animacy and relative position on a hierarchy of deep-case roles ranked from most to least agentive¹⁰ [Harris 1981, Tuite 1988]. One of the important changes in Kartvelian diachronic syntax, as pointed out by Cole et al 1980 (see also Aronson 1976), has been the reapportionment of these privileges in the direction of greater convergence onto one type of argument. More precisely, the number agreement process — that is, a very local syntactic privilege — has realigned to accord more closely with prominence in the less local, cross-clausal domain. For this purpose, number agreement morphemes were, in a sense, "recruited" to code prominent arguments which had not earlier controlled number agreement. The marker -an used in {4} and the -t in {5} and {6} came from Set V. The origins of q'e are still not known with certainty, though the use of this particle to code iterative and permansive Aktionsart in Fereidianian and Mtiulian may be an important clue toward the solution of this mystery.

Acknowledgements. Much of the investigation for this paper was undertaken in Tbilisi from September 1985 to June 1986, during which time I was a participant in the exchange of American and Soviet researchers administered by the International Research and Exchanges Board and the Ministry of Higher Education of the USSR. Among the many scholars with whom I discussed the issues examined here I especially wish to acknowledge Shukia Apridonije, Nani Ch'anišvili, Aleksandre Ghlont'i, Besarion Jorbenaje, Damana Melikišvili and Meri Nik'olaišvili in Tbilisi, and Howard Aronson in Chicago. Special thanks go to Dee Ann Holisky, whose extensive marginal comments led to improvements both in the content and its packaging. If any errors remain despite all of this assistance, they are my fault.

FIG. 1. GEORGIAN DIALECT AREAS

*Map 1: The Kartvelian languages and dialects*

ABBREVIATIONS

- EnIMKI = Ak'ad. N. Maris saxelobis enis, ist'oriisa da mat'erialuri k'ult'uris inst'it'ut'is moambe (Bulletin of the Academician N. Marr Institute of language, history and material culture).
 GTK = Gignešvili, et al. 1961.
 IKE = Iberiul-k'avk'asiuri enatmecniereba (Ibero-Caucasian linguistics).
 IKEC = Iberiul-k'avk'asiuri enatmecnierebis c'elic'deuli (Annual of Ibero-Caucasian linguistics).
 KESS = Kartvelur enata sr'ukt'uris sak'itxebi (Issues in the structure of the Kartvelian languages).
 TSUG = Tbilis saxeimc'ipo universit'et'is gamomcemloba (Tbilisi State University Press).

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NOTES

¹The following abbreviations will be used in the glosses to the Georgian examples:

(a.) **case:** NOMinative, ERGative, DATive, GENitive, INStrumental, ADVerbial;

(b.) **verb-paradigm series:** I (present/future, imperfect/conditional, conjunctive); II (aorist, optative, permansive); III (present perfect/evidential; pluperfect);

(c.) **verb class:** active, passive

(d.) **other:** QT (direct quote marker), PLural.

Verb agreement marking is given in the order: Set V/Set M/pluralizer.

²In his dialect dictionary Glonti (1984:605-6) has collected several such definitions, e.g.: (a) "particle placed after the verb in the sentence to indicate object plurality (V. Beri); (b) particle used to express plurality of an object in the dative or nominative case, or of a subject in the dative case (GTK:679)].

³Of course, the factors conditioning the appearance of this morpheme as a Set M NA marker for 2nd person and for 3rd person arguments are very different. Although NA with 2pl grammatical objects was relatively uncommon in late Old Georgian, in modern standard Georgian it is for all intents and purposes obligatory; its appearance is only blocked by a morphological rule permitting no more than one plural suffix (Tschenkéli 1958:354; Šanije 1953:184-6). So, instead of the expected **g-i-c'er-en-t* 'they are writing to you(pl)', the form *g-i-c'er-en* 'they are writing to you (sg or pl)' must be used. The appearance of Set M 3pl-*t* is dependent on the same factors that are relevant for *q'e*, though the threshold varies from dialect to dialect. In the modern standard language, the basic rule is that 3rd person "real subjects" have the potential to control number agreement, but other 3rd person arguments do not (Čikobava 1967, Harris 1978, Cole et al 1980). In practice, NA with 3pl experiencers, benefactives, and — rarely — recipients and addressees is widely attested in written Georgian (see Tschenkéli 1958:486-90; Jorbenaje 1981; K'iziria 1985; Tuite 1987).

⁴Don Stilo, who is, as far as I know, the only American to have done fieldwork on the Fereidanian dialect in Iran, reports that in the texts he collected (as yet unpublished) *q'e* was employed only as an aspectual marker.

⁵The same particle, in the same contexts, is observed in the neighboring Moxevian dialect as well. The following example is from GTK:

gazapxul-is p'ir-či ker-i da-v-tes-i-t-k'e da stwel-ze mo-v-mk'-i-t-k'e
[spring-GEN mouth-in barley-NOM sow-IIa-1pl/3 and vintage-at mow-IIa-1pl/3]

"In early spring we (habitually) sow barley, and at vintage time we reap it."

⁶According to Jijiguri (1954:230-1) for NA with plural grammatical objects in Rachian both *-t* and *q'e* are used when the grammatical subject is 3rd person. With a 1st or 2nd person grammatical subject, only *q'e* is used for this purpose, to avoid confusion with the primary use of *-t* as a 1st/2nd Set V plural NA marker: hence, (*šen*) *Ø-u-txar-i-q'e* (*mat*) "you(sg) told it to them," but not *(*šen*) *Ø-u-txar-i-t* (*mat*); the latter verb can only mean "you(pl) told it to him/her/them."

⁷In modern Georgian, the plural suffixes *-n-i* [NOM] and *-t(a)* [ERG, DAT, GEN] are stylistically marked, restricted for the most part to literary or officialese registers, and to fixed phrases.

⁸Animacy was not a relevant factor for determining the occurrences of *-en*-agreement in Old Georgian. For example, in the 6th century Xanmet'i texts edited by Molitor (1956), of 45 instances of *-en*-NA with transitive direct objects, only half of them (22) refer to animate beings; likewise in a sample of texts from the northeast dialect area (where the NA mechanism is basically the same as in Old Georgian) less than half (21 of 44) of the direct objects controlling NA in *-en*-have animate referents. By contrast, in the Glola Rach'an texts that I have examined, almost all such NPs (24 of 26) denote animate beings.

⁹According to I. K'ik'naje 1983, the popular Georgian novelist Otar Č'ilaje makes especially frequent use of the Set M plural suffix *-t* to code the number of topical 3rd plural arguments, even when these are not serving as subjects in the usual sense of the term (and therefore number agreement would not be expected according to the norms of modern literary Georgian).

¹⁰In Harris' terms, these operations are sensitive to "initial subjecthood," which is in most cases predictable from the agentivity hierarchy (Harris 1981:258) though, as in other languages, exceptions occur (Rosen 1984).